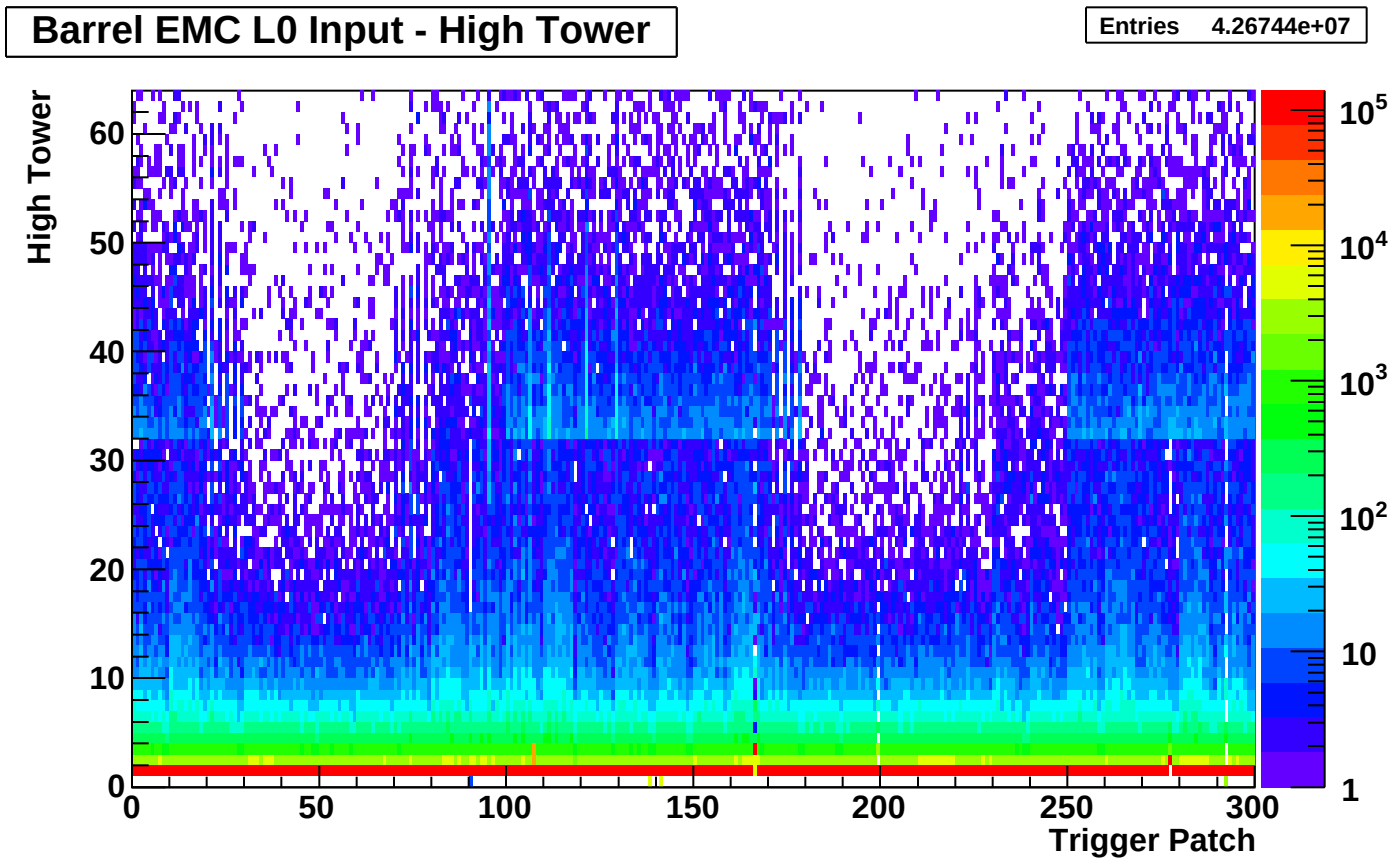
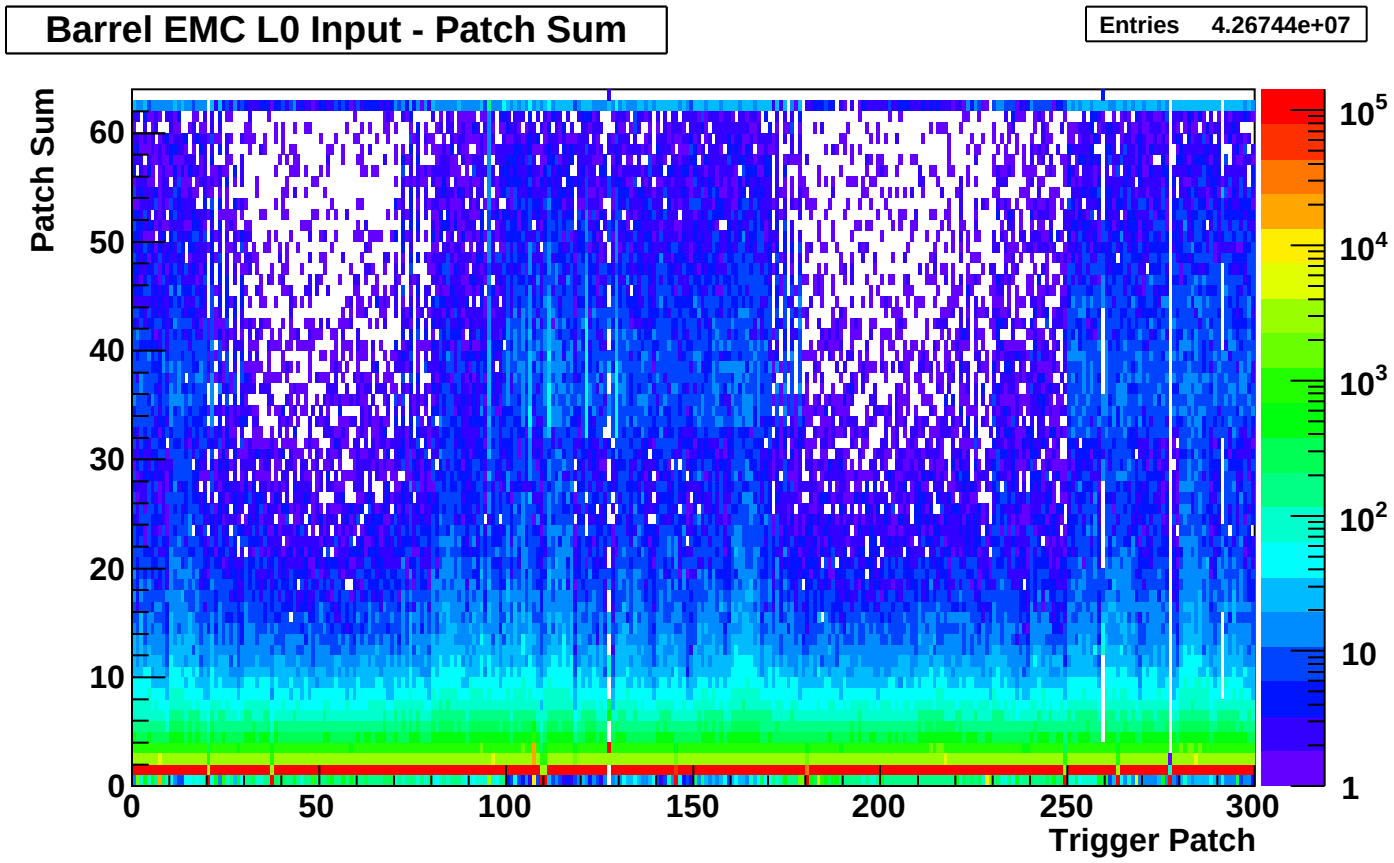
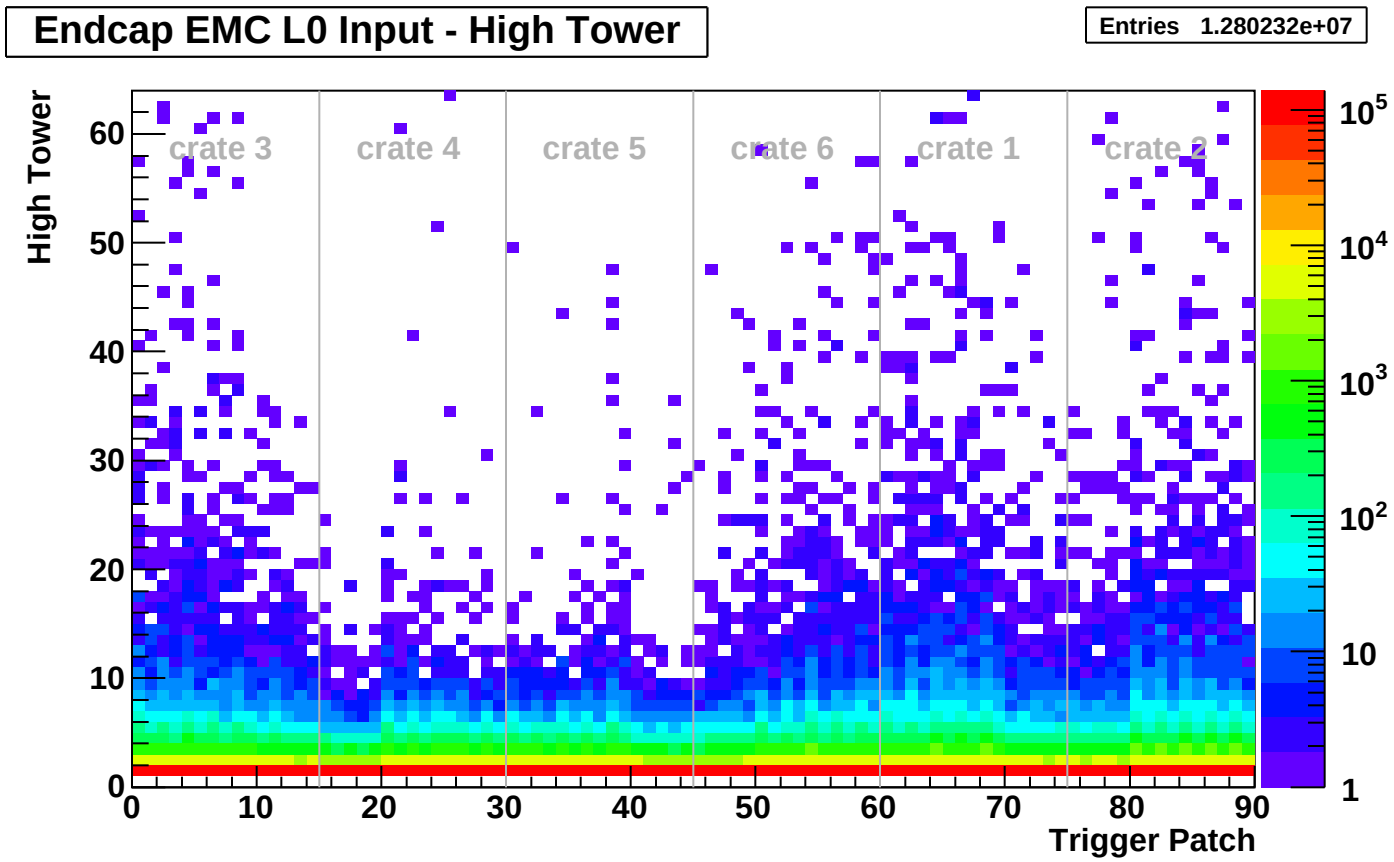
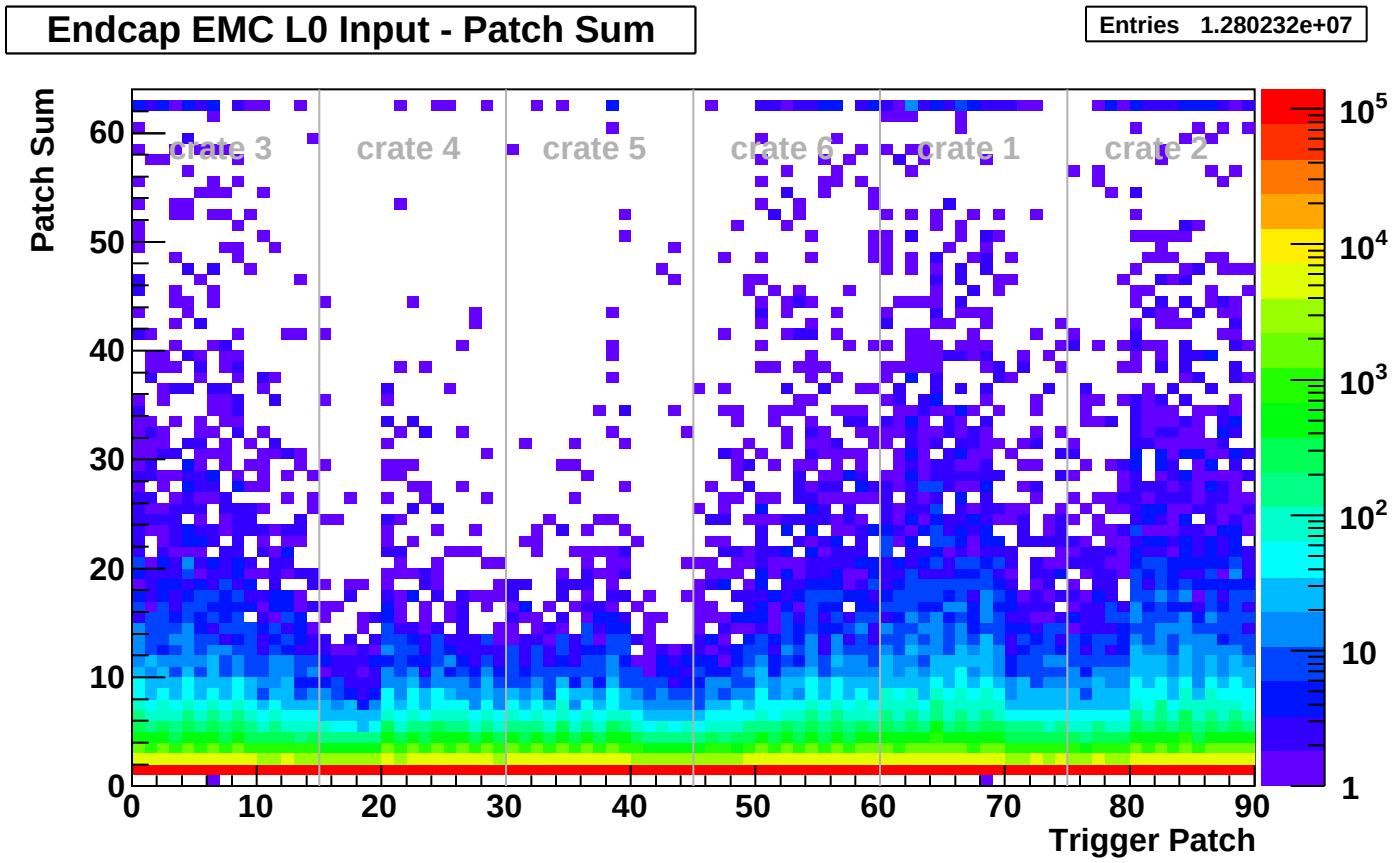
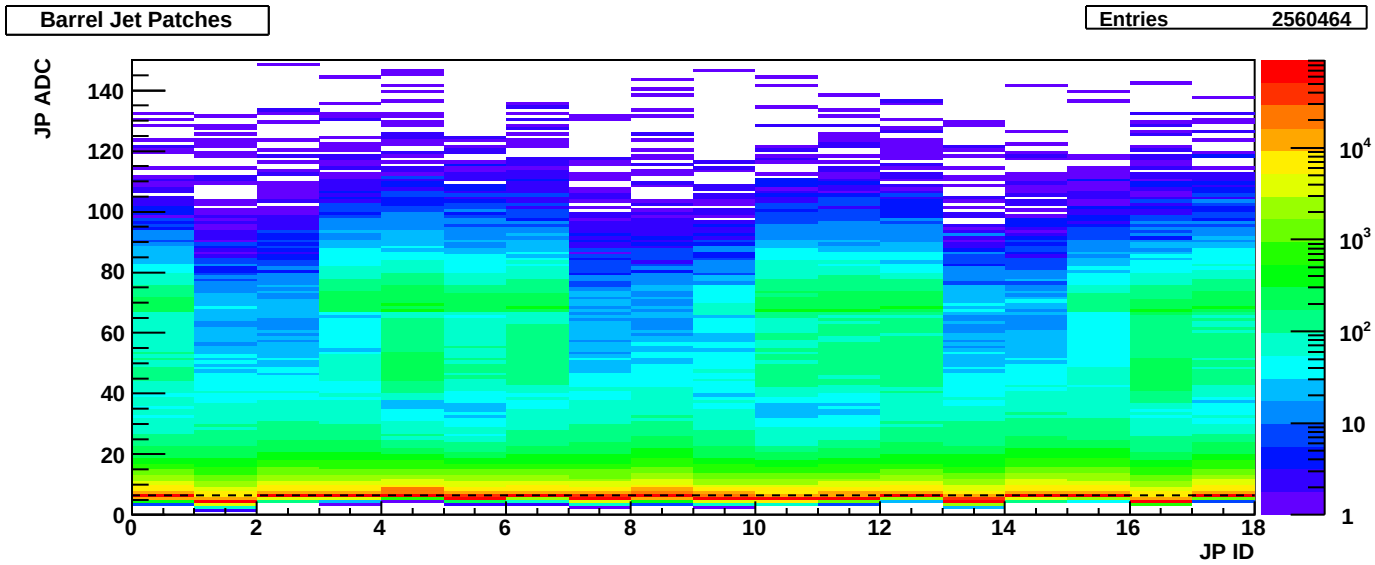
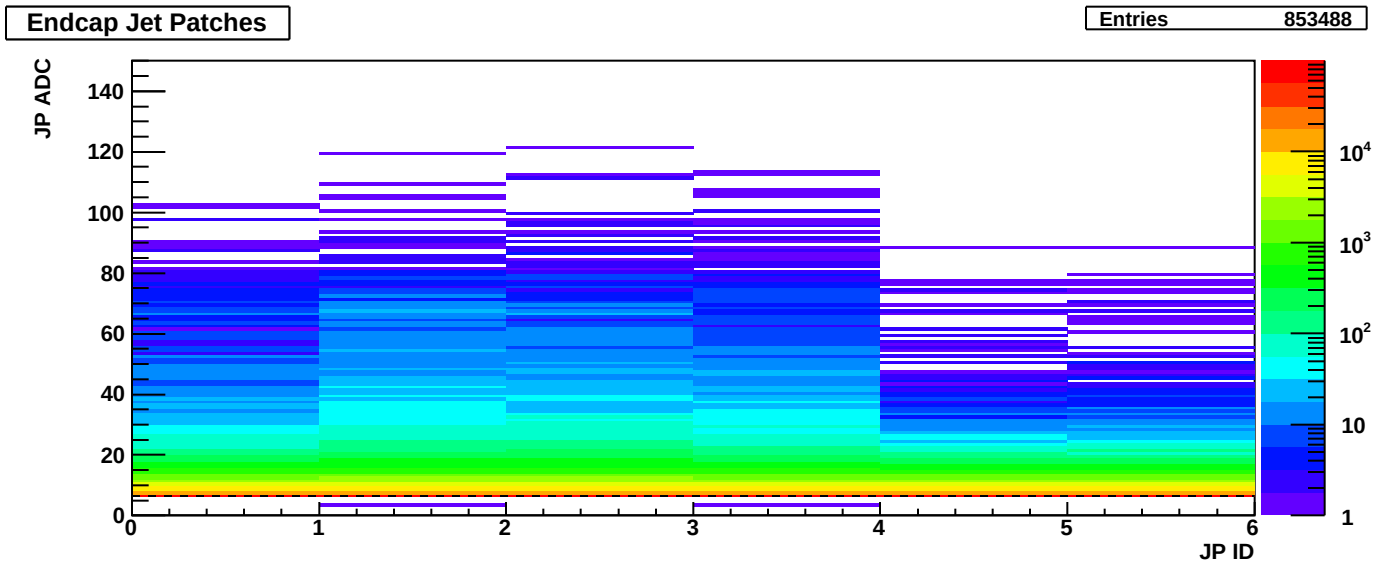

Barrel EMC L0 Input - High Tower
Entries 4.26744e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

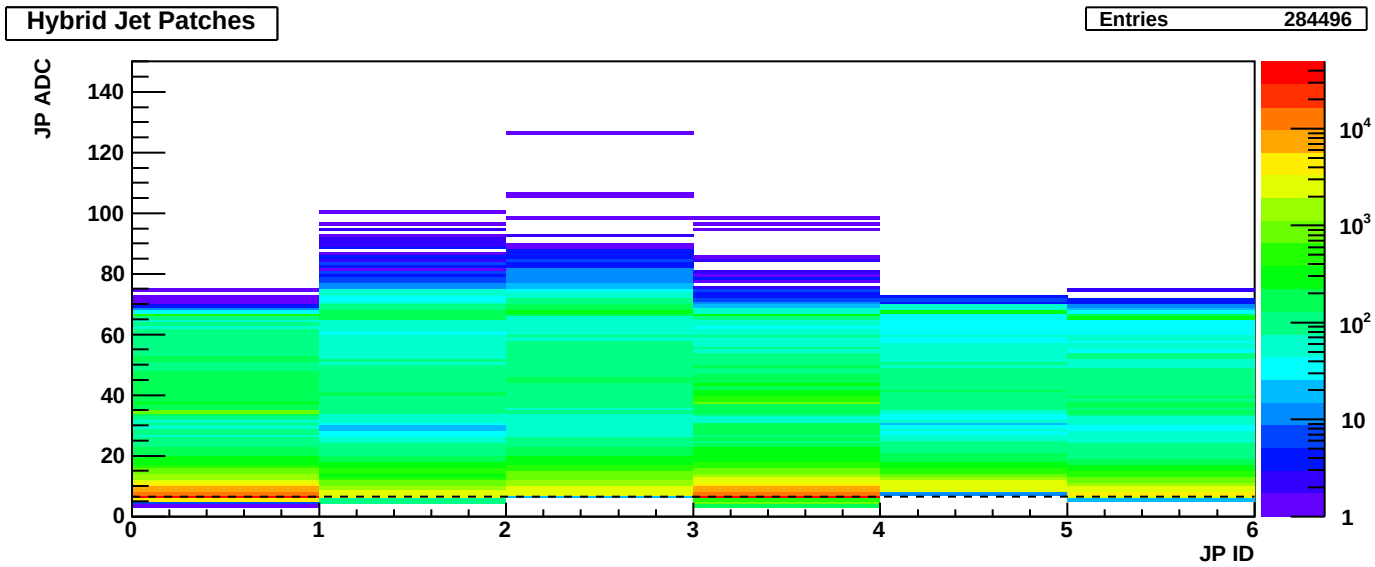

Barrel EMC L0 Input - Patch Sum
Entries 4.26744e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

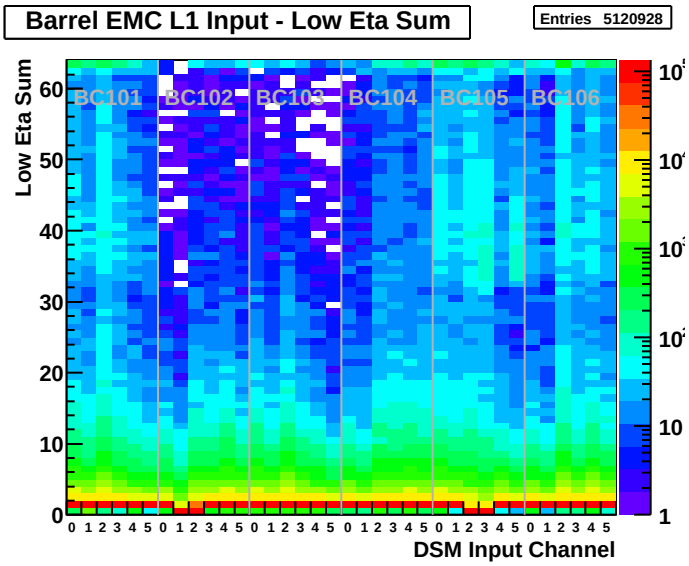

Endcap EMC L0 Input - High Tower
Entries 1.280232e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

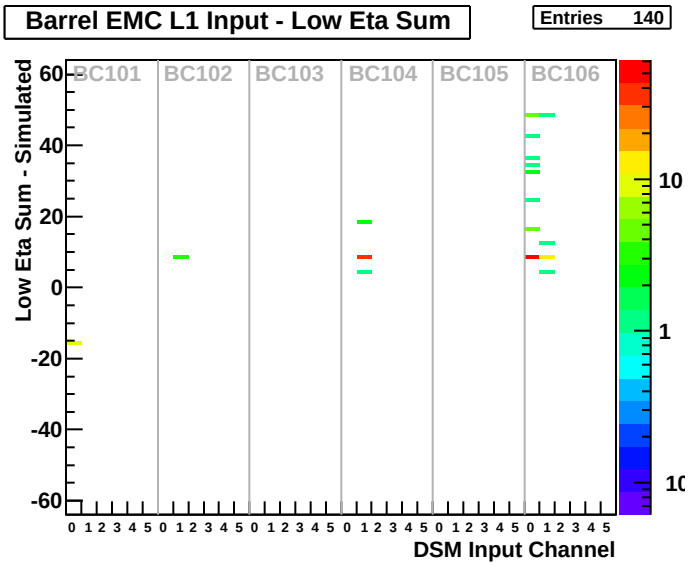

Endcap EMC L0 Input - Patch Sum
Entries 1.280232e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

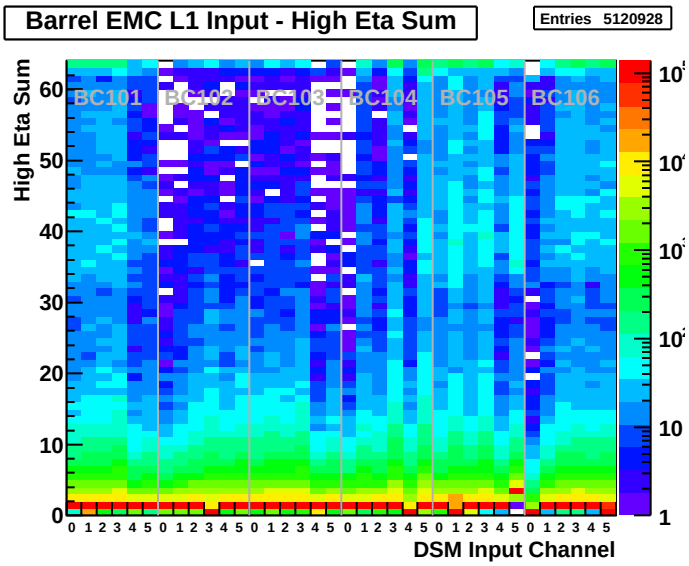

Barrel Jet Patches
Entries 2560464
JP ADC
JP ID

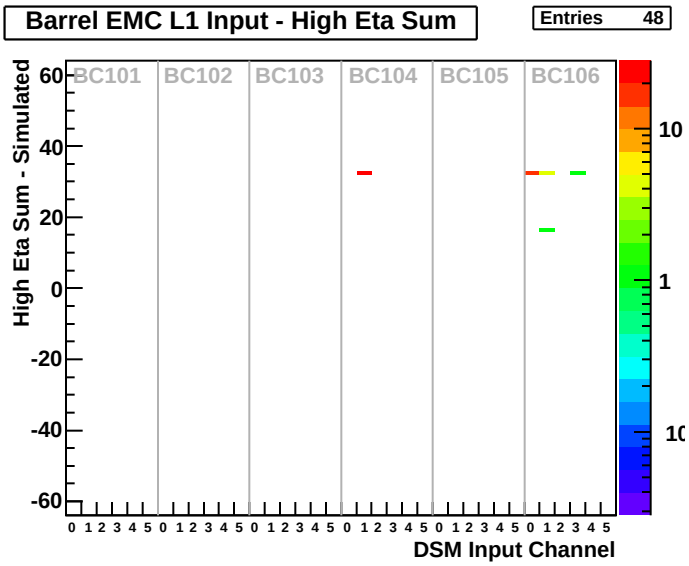

Endcap Jet Patches
Entries 853488
JP ADC
JP ID

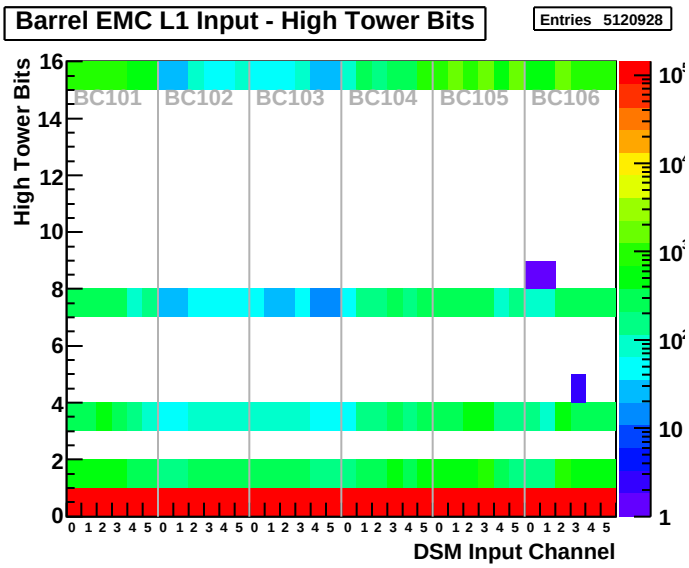

Hybrid Jet Patches
Entries 284496
JP ADC
JP ID

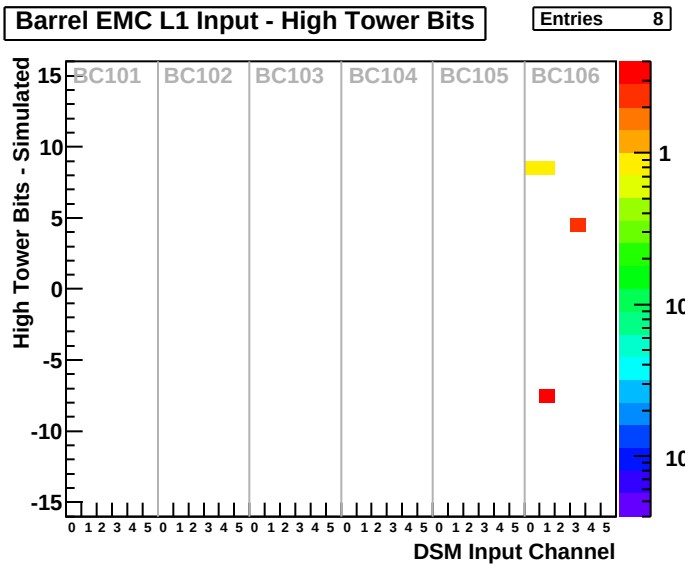

Barrel EMC L1 Input - Low Eta Sum
Entries 5120928
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

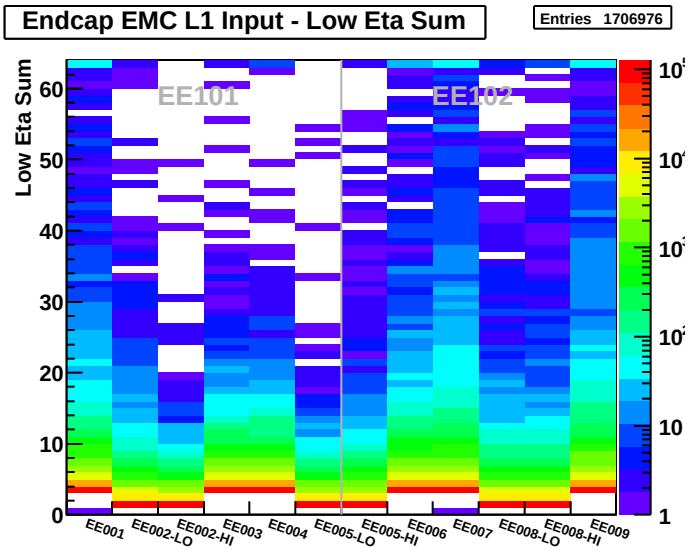

Barrel EMC L1 Input - Low Eta Sum
Entries 140
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

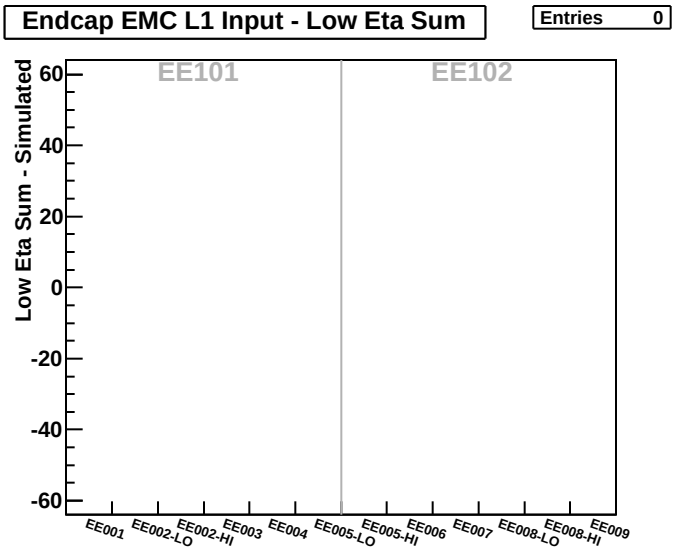

Barrel EMC L1 Input - High Eta Sum
Entries 5120928
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

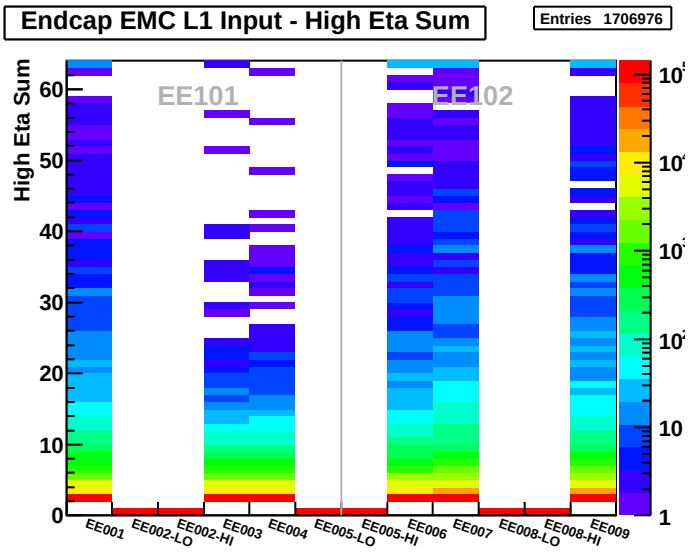

Barrel EMC L1 Input - High Eta Sum
Entries 48
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

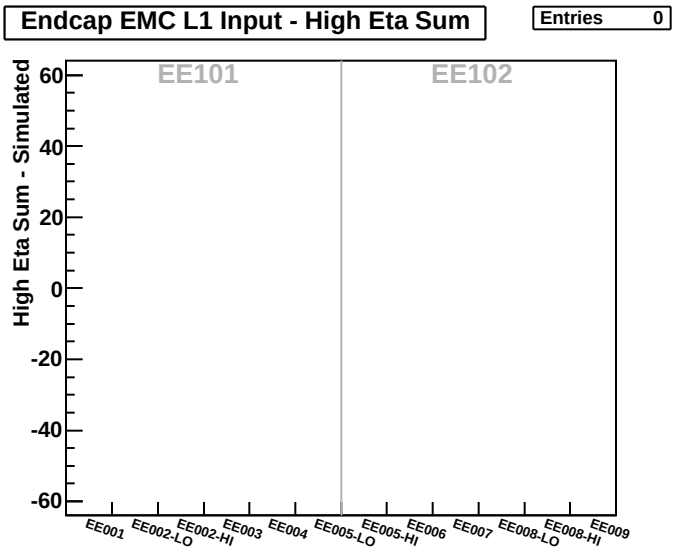

Barrel EMC L1 Input - High Tower Bits
Entries 5120928
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

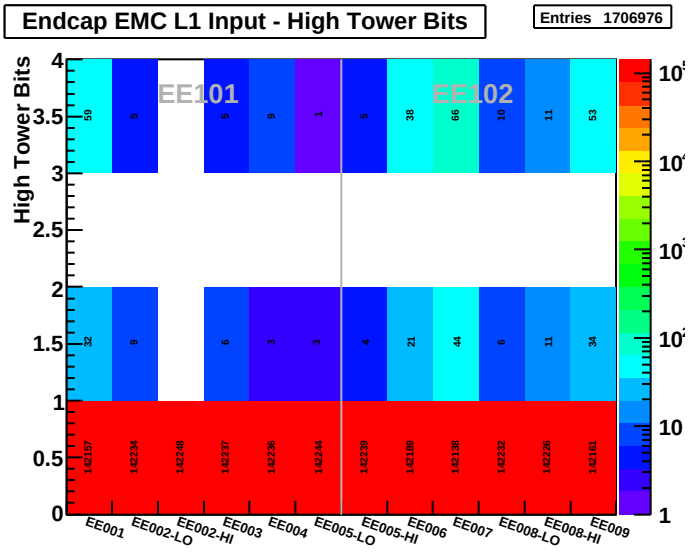

Barrel EMC L1 Input - High Tower Bits
Entries 8
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

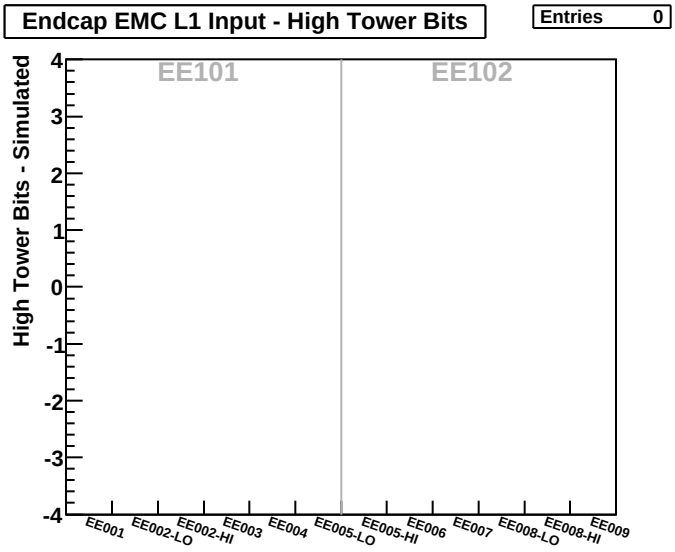

Endcap EMC L1 Input - Low Eta Sum
Entries 1706976
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

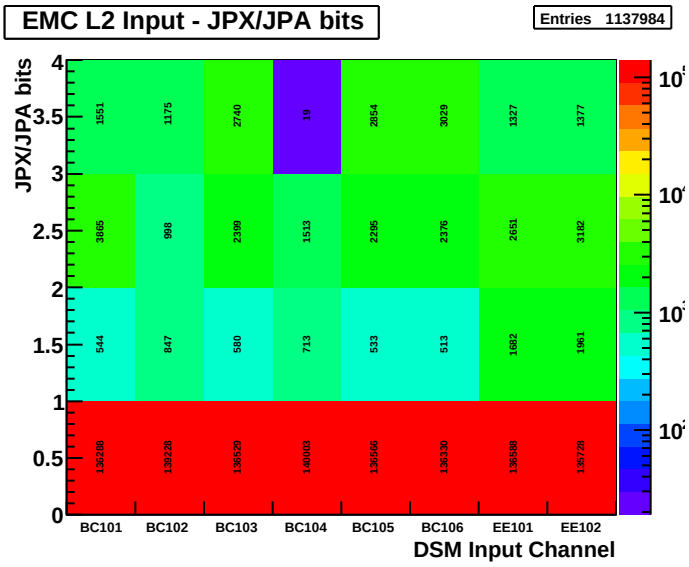

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

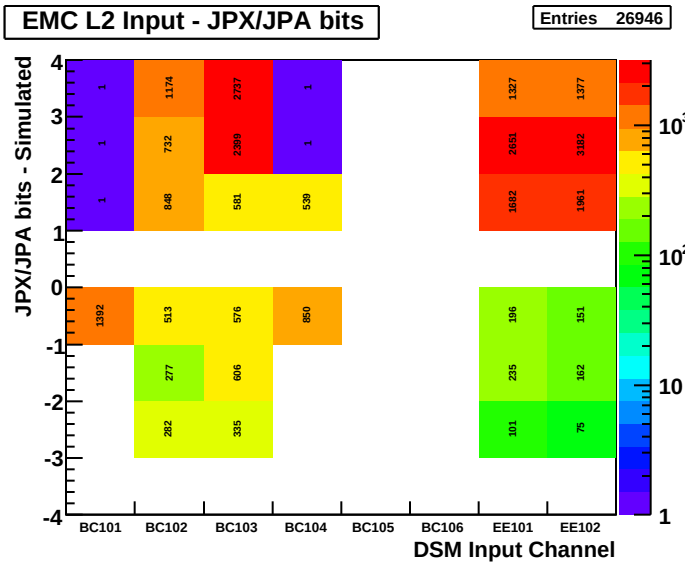

Endcap EMC L1 Input - High Eta Sum
Entries 1706976
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

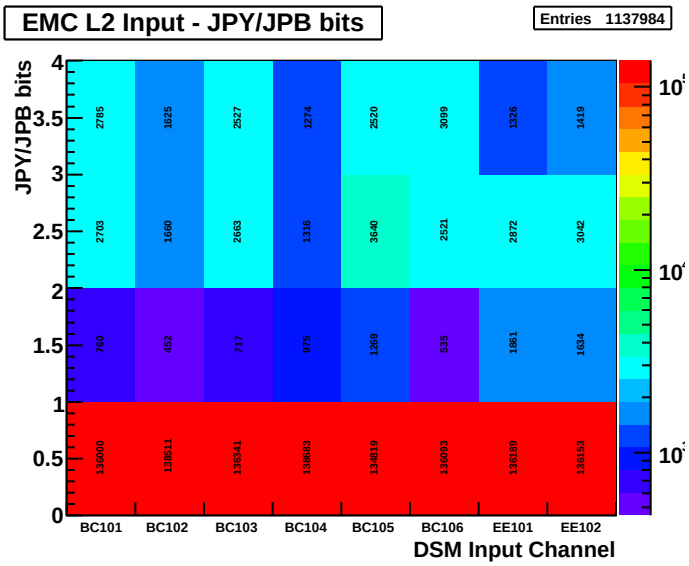

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

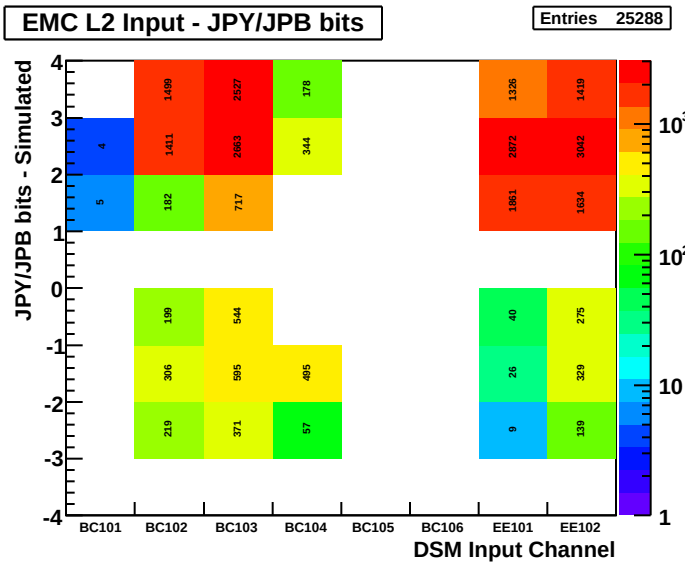

Endcap EMC L1 Input - High Tower Bits
Entries 1706976
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

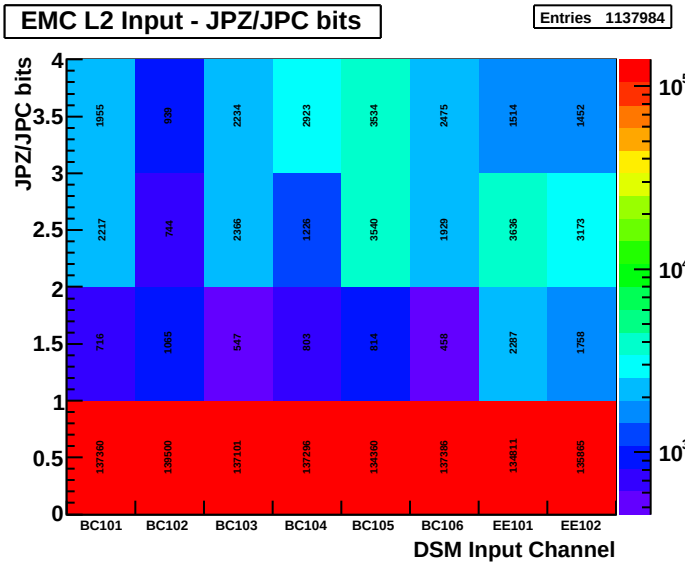

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

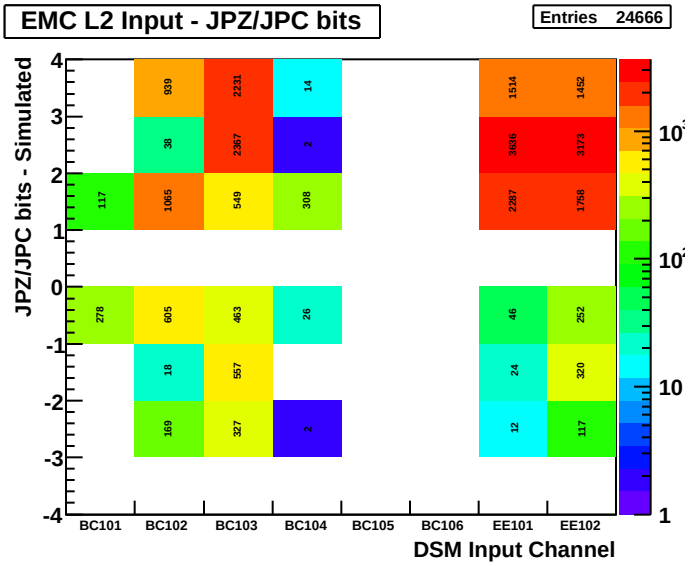

EMC L2 Input - JPX/JPA bits
Entries 1137984
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

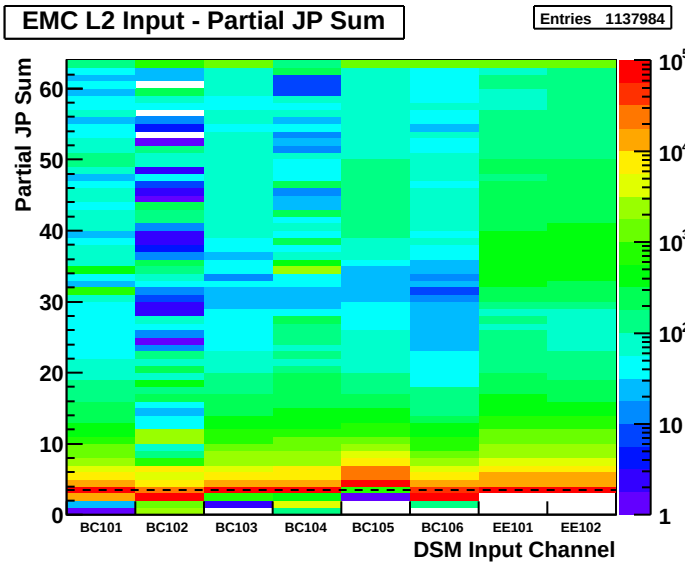

EMC L2 Input - JPX/JPA bits
Entries 26946
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

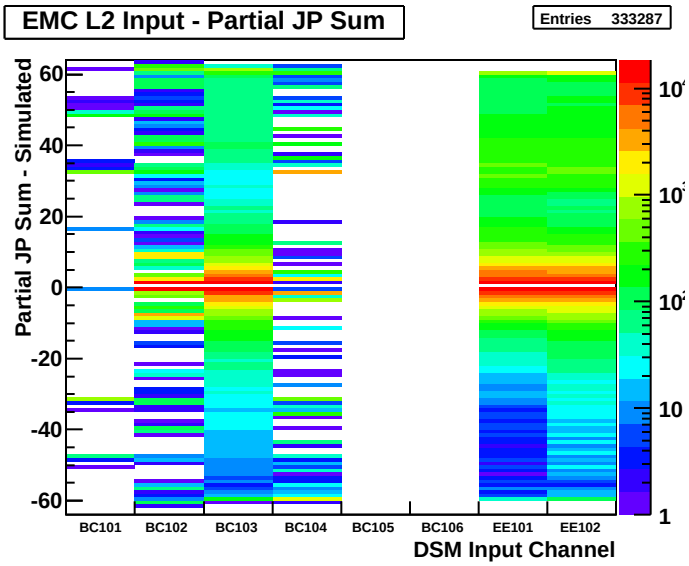

EMC L2 Input - JPY/JPB bits
Entries 1137984
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

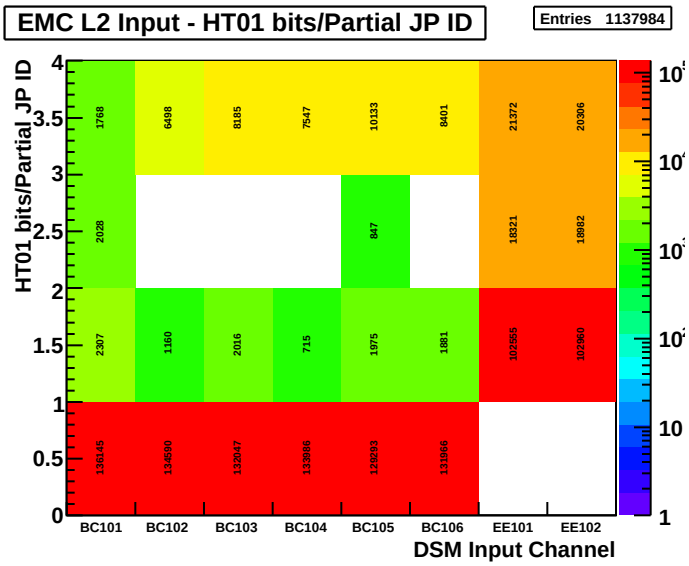

EMC L2 Input - JPY/JPB bits
Entries 25288
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

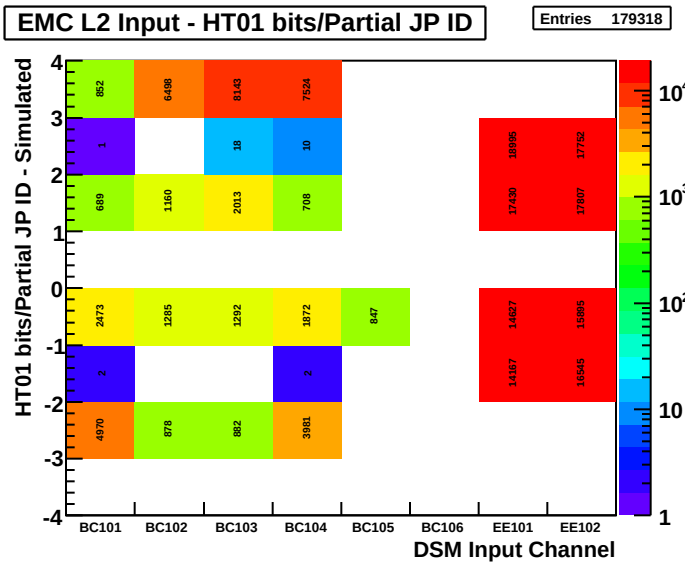

EMC L2 Input - JPZ/JPC bits
Entries 1137984
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

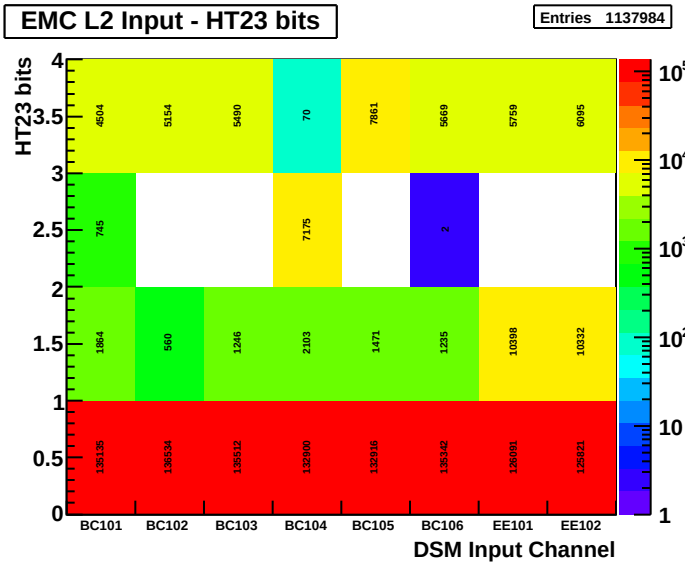

EMC L2 Input - JPZ/JPC bits
Entries 24666
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

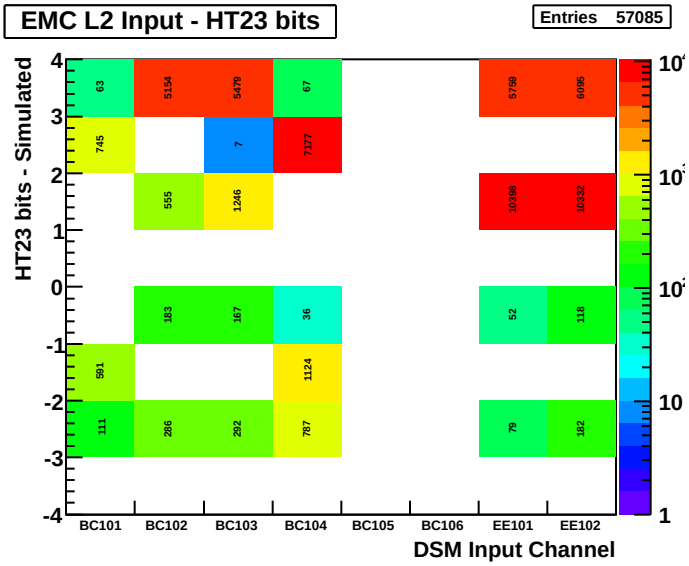

EMC L2 Input - Partial JP Sum
Entries 1137984
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

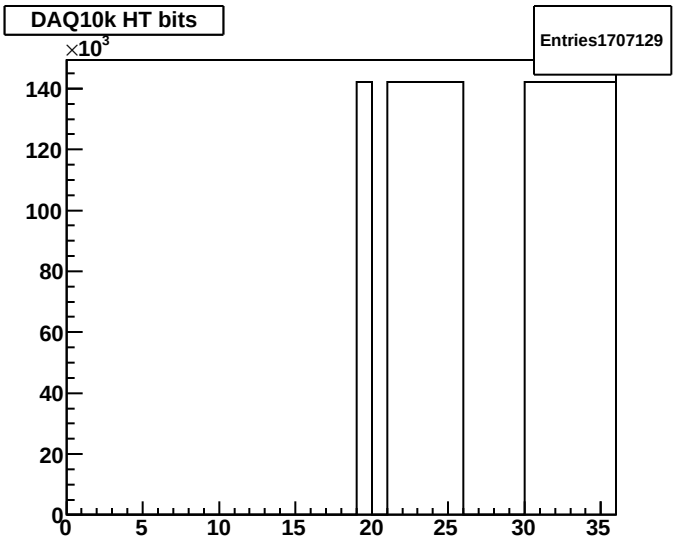

EMC L2 Input - Partial JP Sum
Entries 333287
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

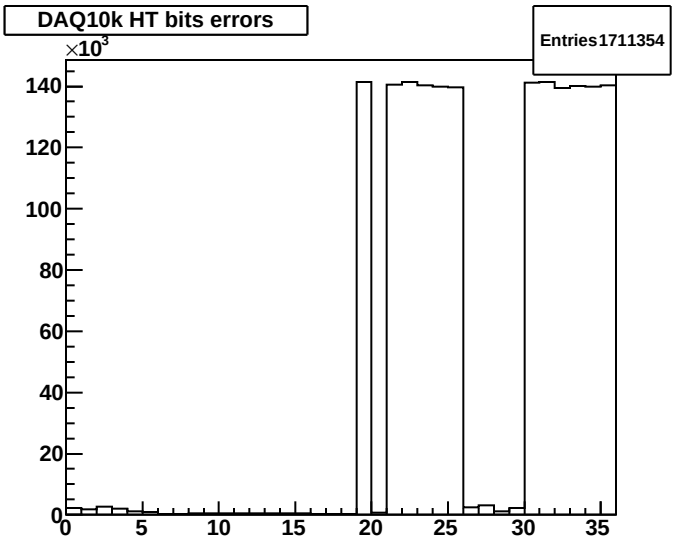

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1137984
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

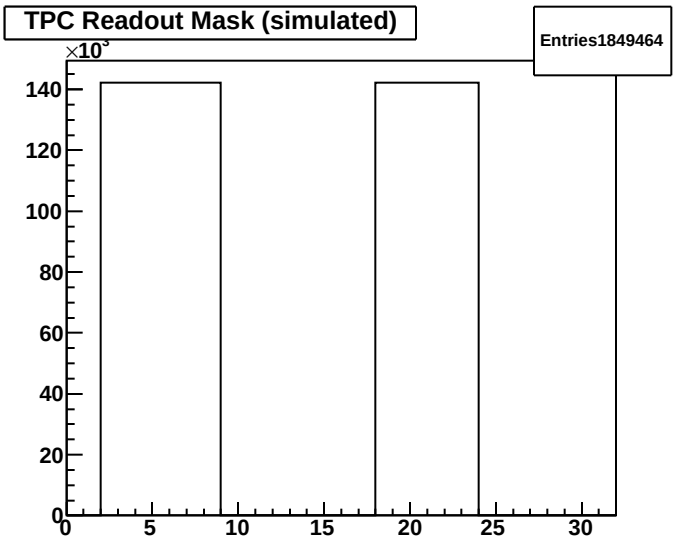

EMC L2 Input - HT01 bits/Partial JP ID
Entries 179318
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

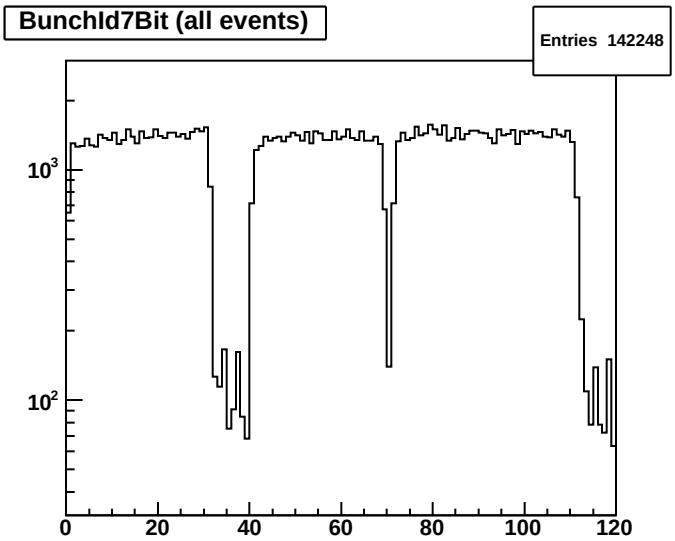

EMC L2 Input - HT23 bits
Entries 1137984
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

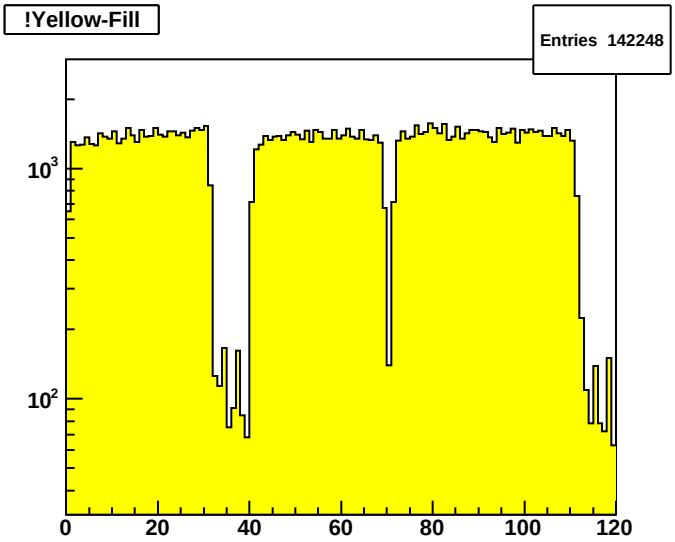

EMC L2 Input - HT23 bits
Entries 57085
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

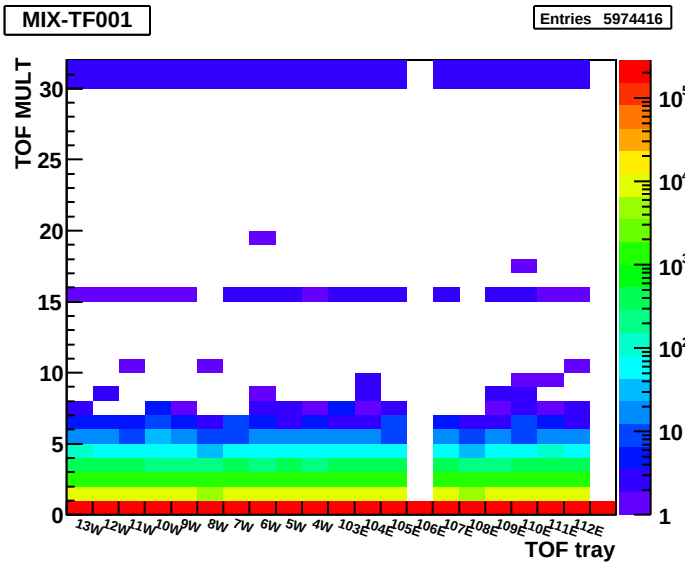

DAQ10k HT bits
Entries1707129
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

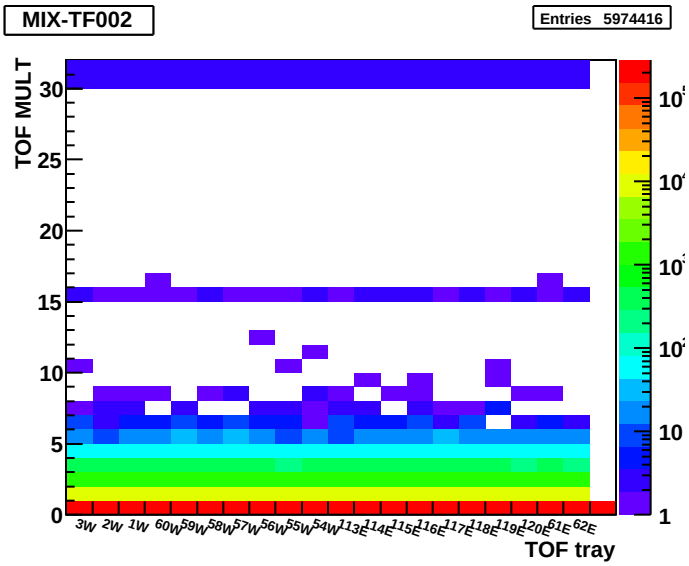

DAQ10k HT bits errors
Entries1711354
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

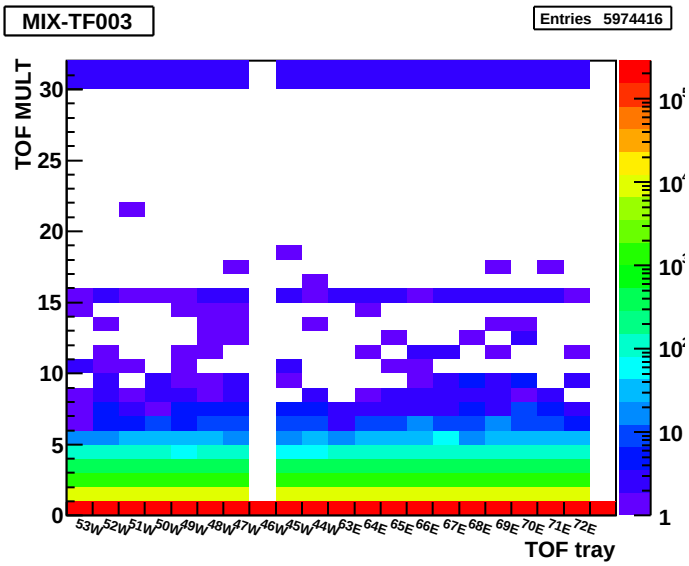

TPC Readout Mask (simulated)
Entries1849464
×10^3
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30

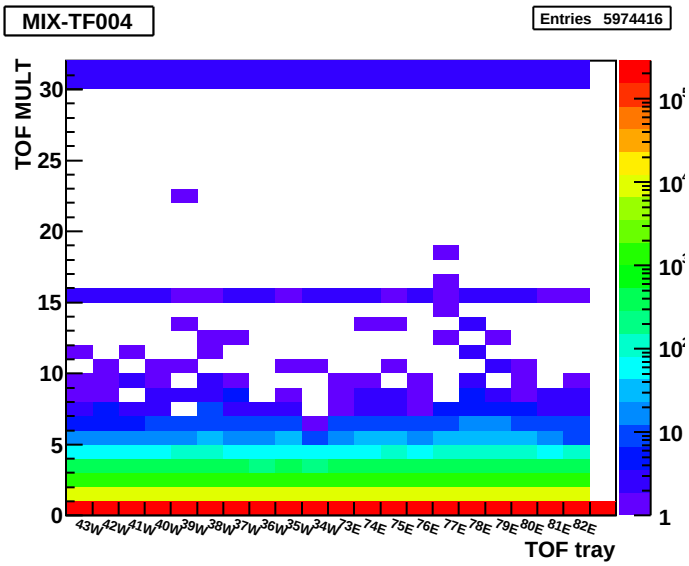

BunchId7Bit (all events)
Entries 142248
10^3
10^2
0
20
40
60
80
100
120

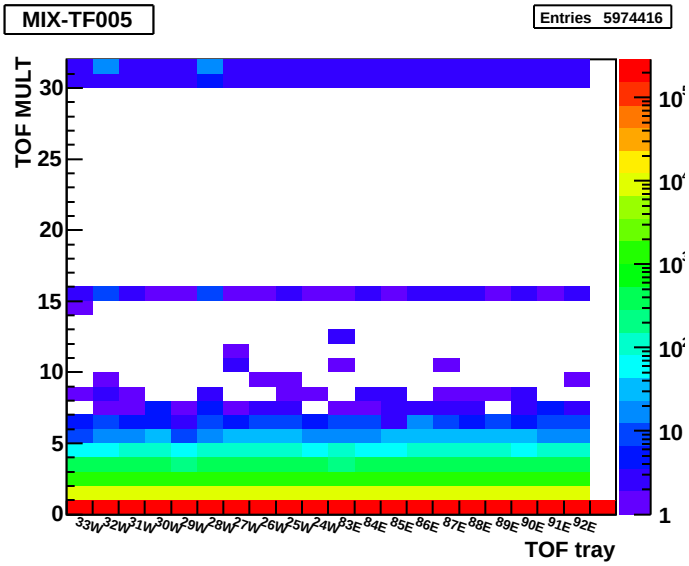

!Yellow-Fill
Entries 142248
10^3
10^2
0
20
40
60
80
100
120

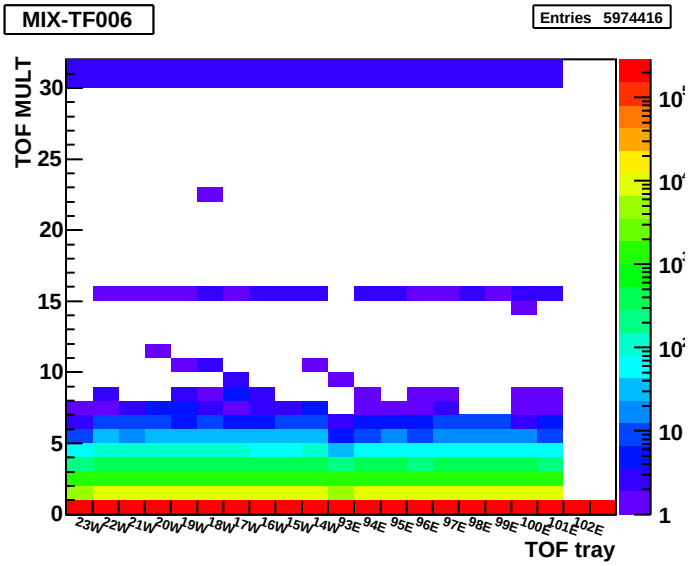

MIX-TF001
Entries 5974416
TOF MULT
TOF tray

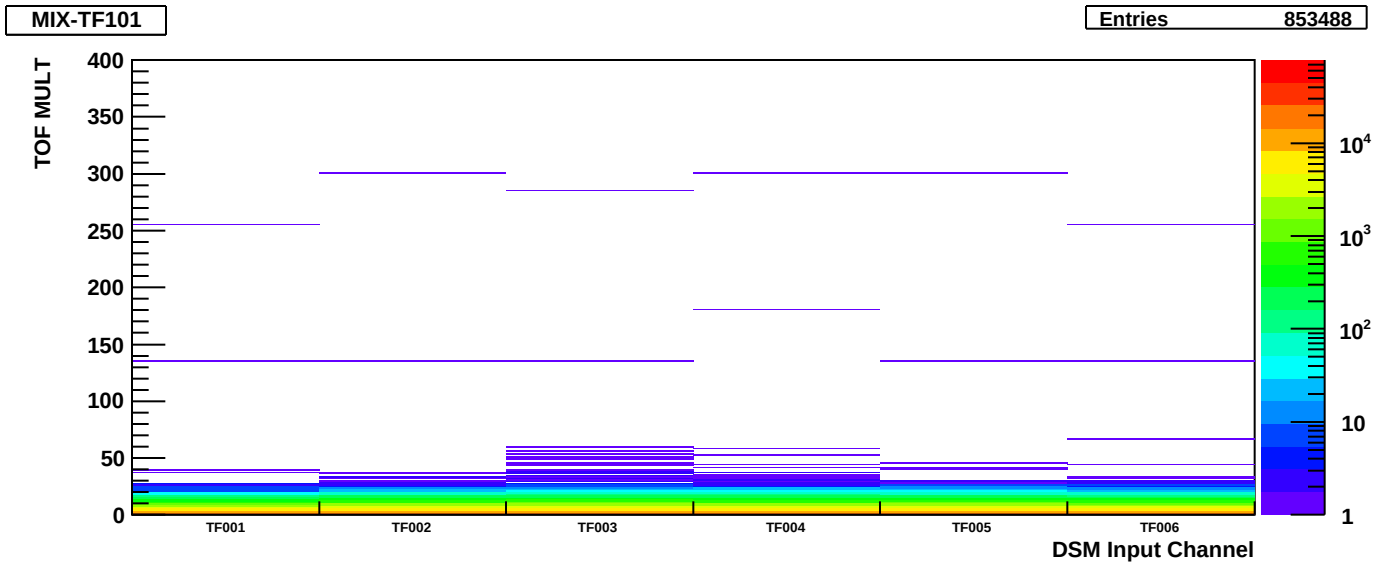

MIX-TF002
Entries 5974416
TOF MULT
TOF tray

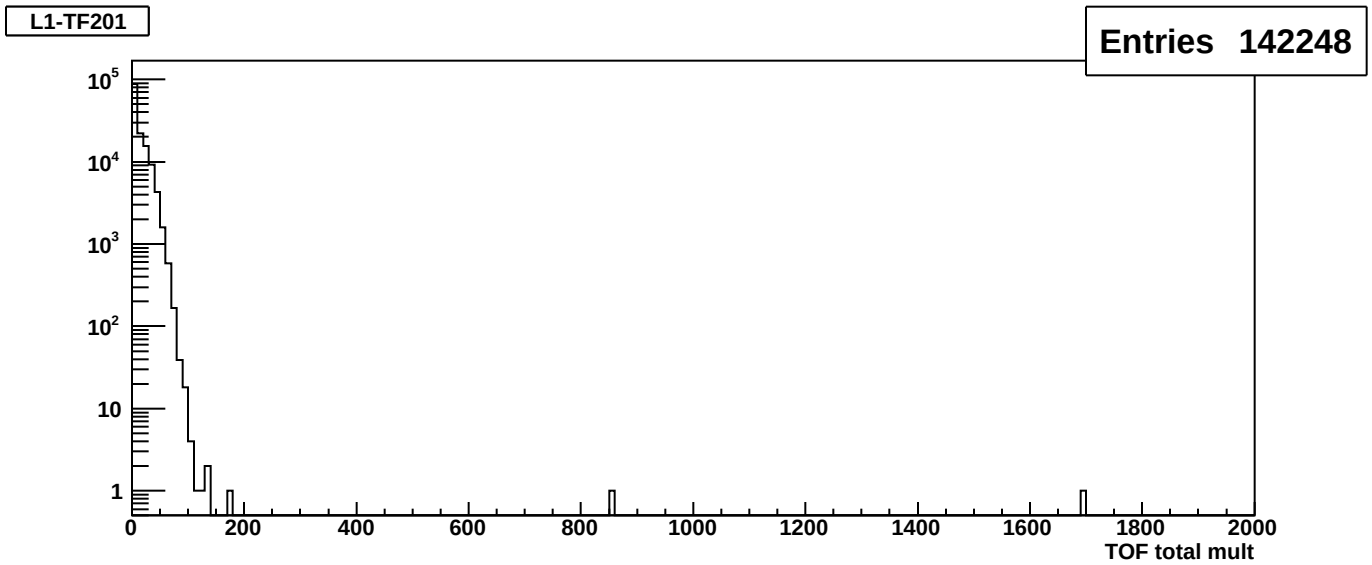

MIX-TF003
Entries 5974416
TOF MULT
TOF tray

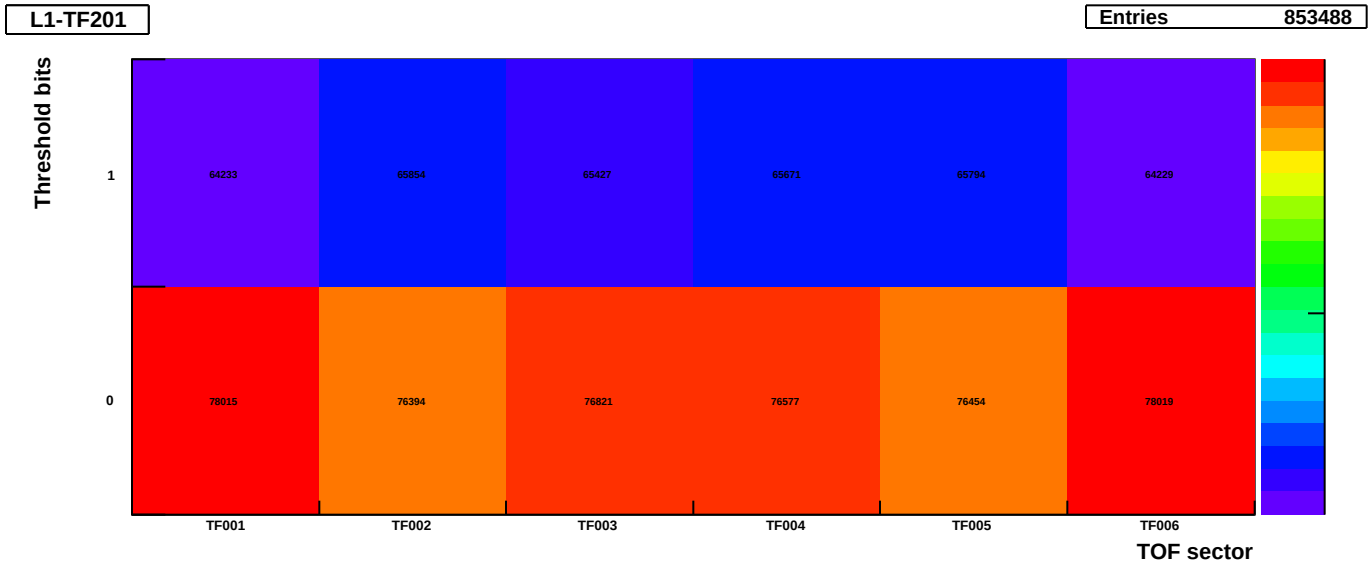

MIX-TF004
Entries 5974416
TOF MULT
TOF tray

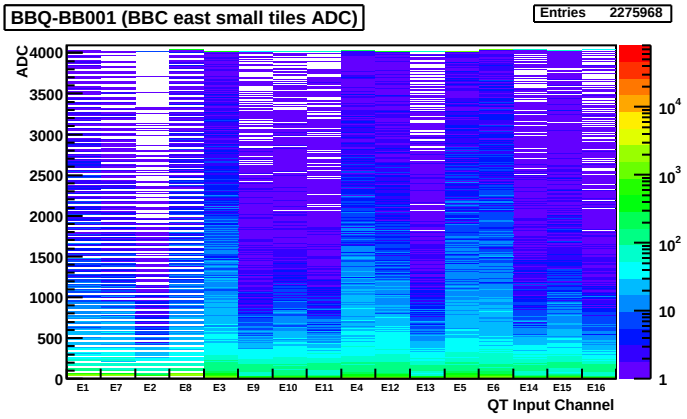

MIX-TF005
Entries 5974416
TOF MULT
TOF tray

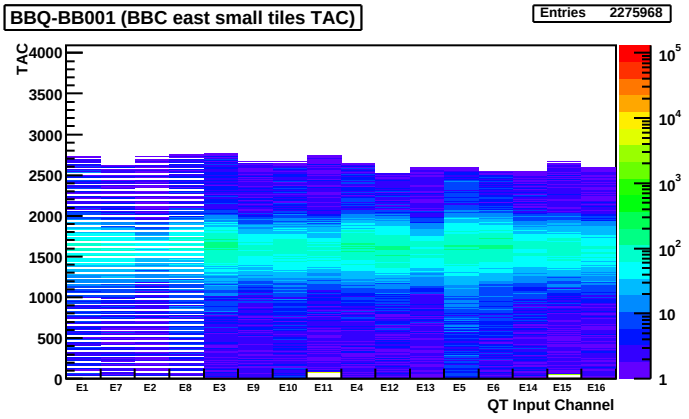

MIX-TF006
Entries 5974416
TOF MULT
TOF tray

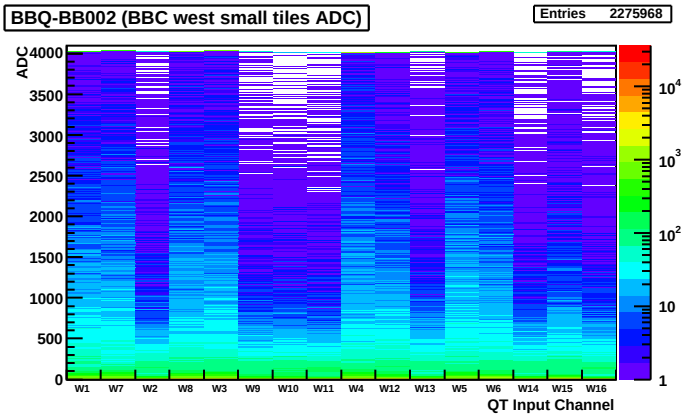

MIX-TF101
Entries 853488
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

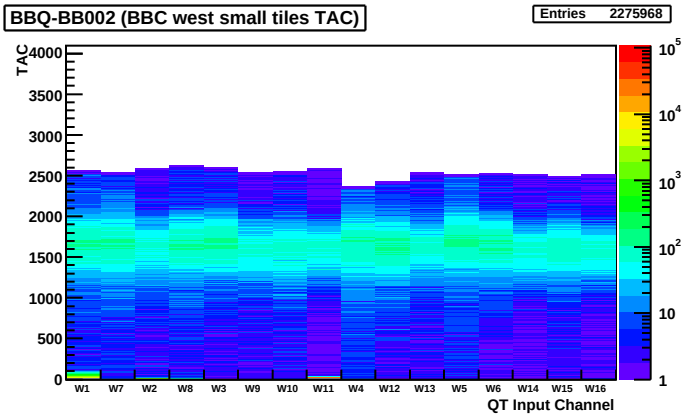

L1-TF201
Entries 142248
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

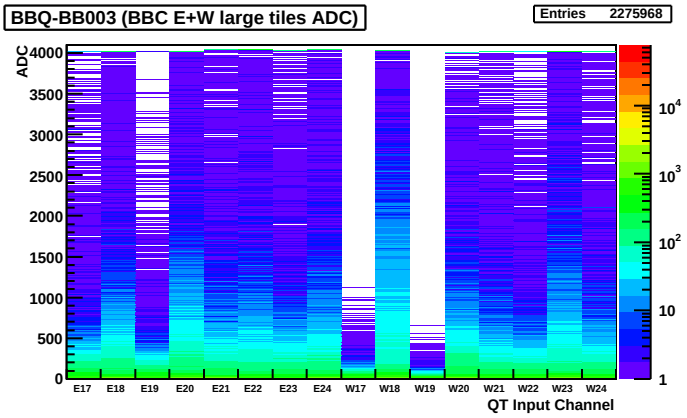

L1-TF201
Entries 853488
Threshold bits
1
0
64233
65854
65427
65671
65794
64229
78015
76394
76821
76577
76454
78019
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

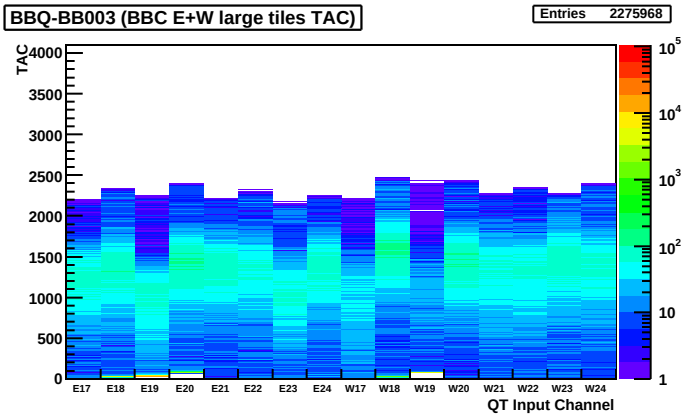

BBQ-BB001 (BBC east small tiles ADC)
Entries 2275968
ADC
QT Input Channel

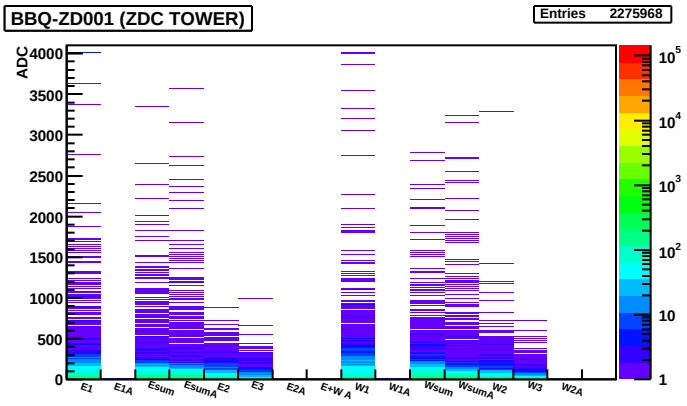

BBQ-BB001 (BBC east small tiles TAC)
Entries 2275968
TAC
QT Input Channel

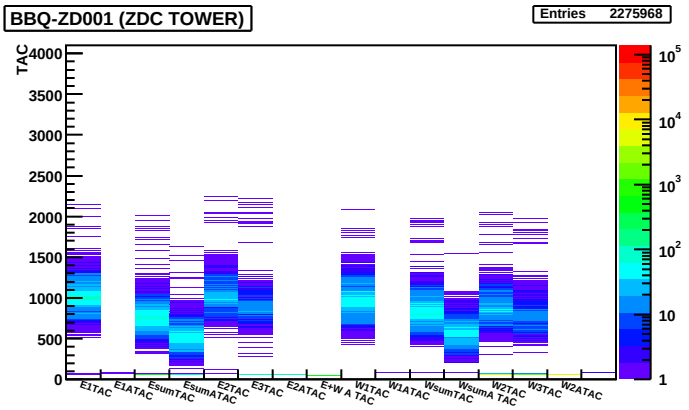

BBQ-BB002 (BBC west small tiles ADC)
Entries 2275968
ADC
QT Input Channel

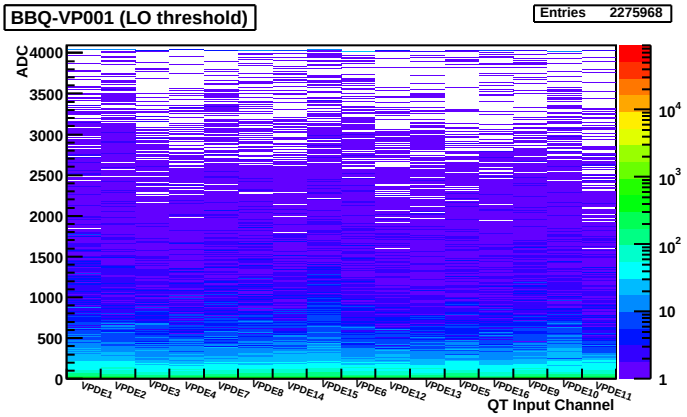

BBQ-BB002 (BBC west small tiles TAC)
Entries 2275968
TAC
QT Input Channel

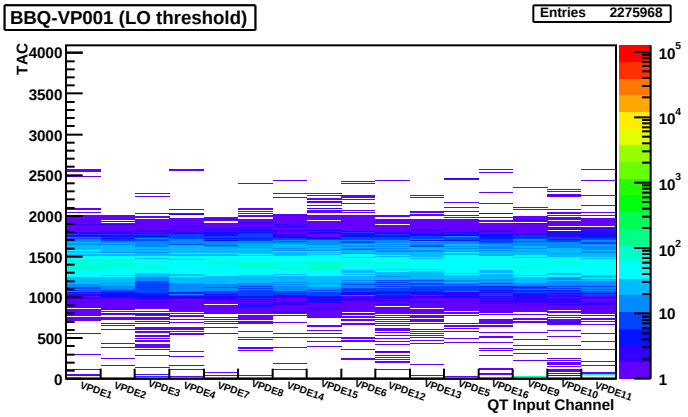

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2275968
ADC
QT Input Channel

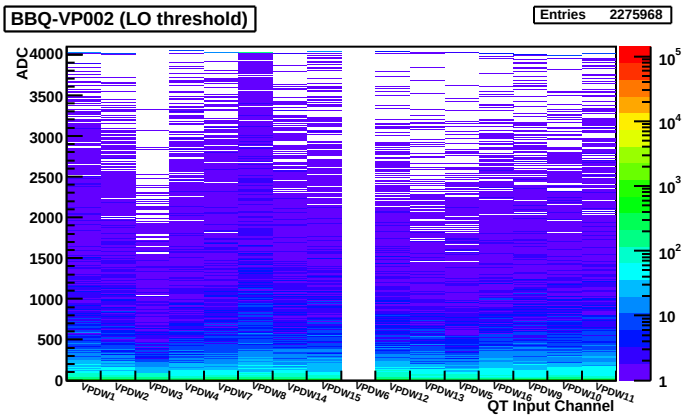

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2275968
TAC
QT Input Channel

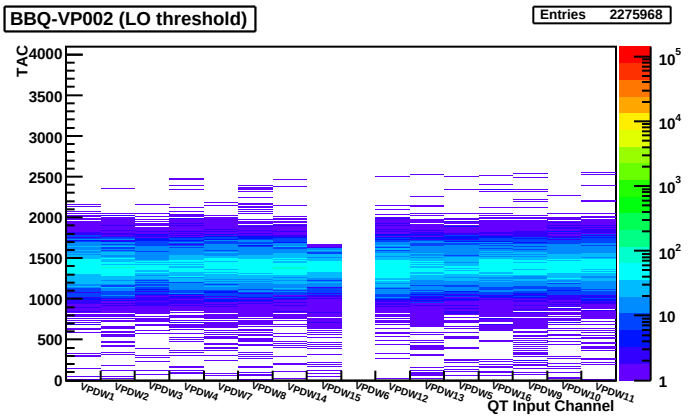

BBQ-ZD001 (ZDC TOWER)
Entries 2275968
ADC

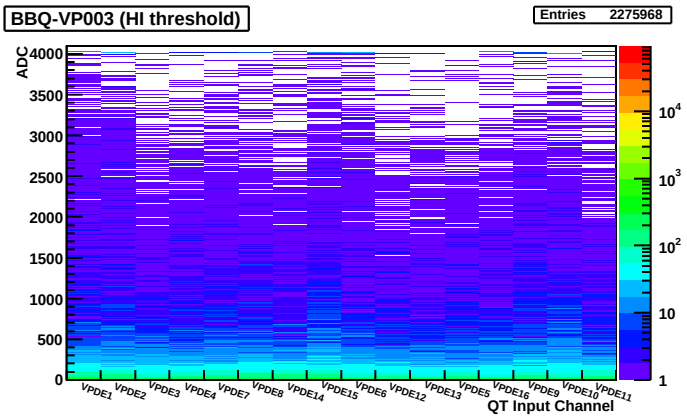

BBQ-ZD001 (ZDC TOWER)
Entries 2275968
TAC

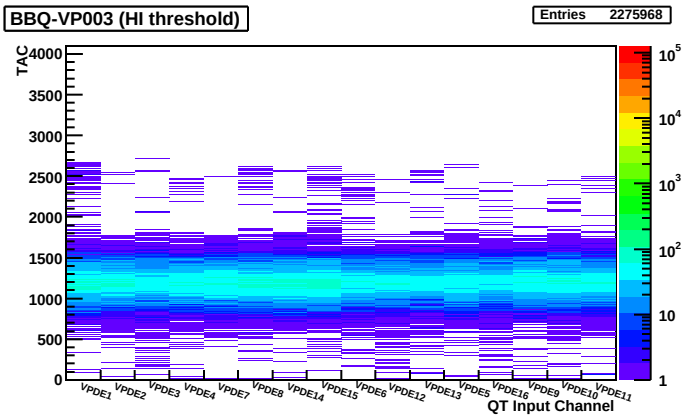

BBQ-VP001 (LO threshold)
Entries 2275968
ADC
QT Input Channel

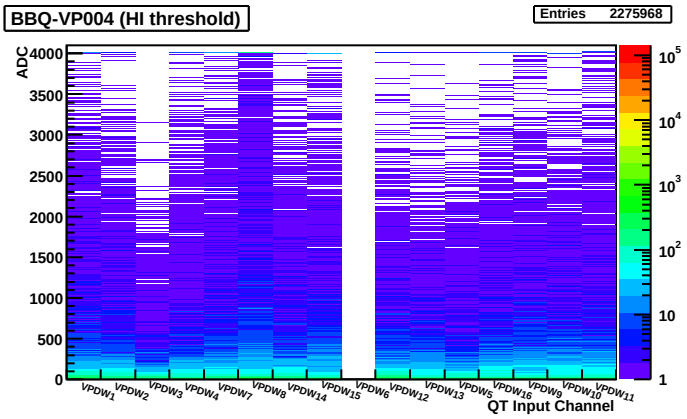

BBQ-VP001 (LO threshold)
Entries 2275968
TAC
QT Input Channel

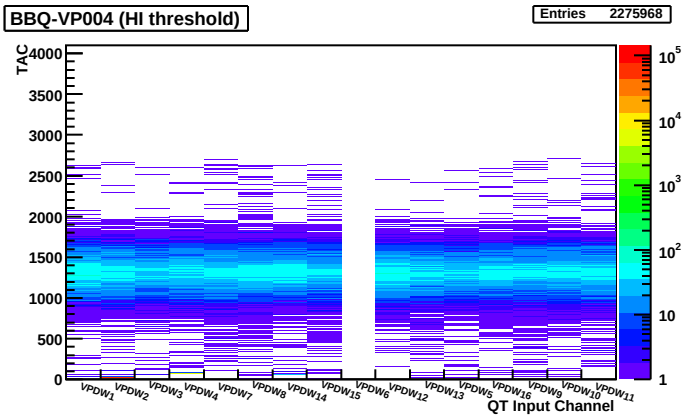

BBQ-VP002 (LO threshold)
Entries 2275968
ADC
QT Input Channel

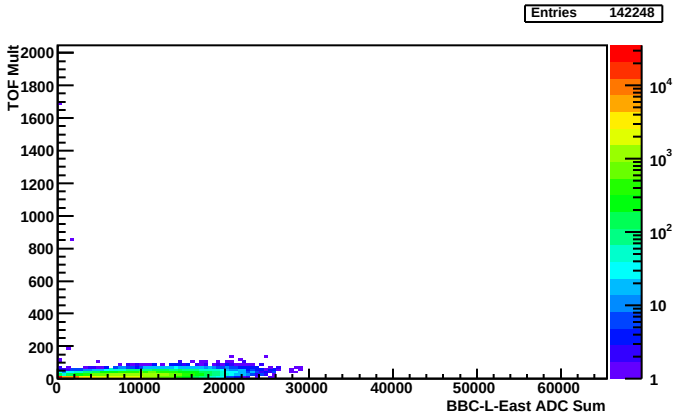

BBQ-VP002 (LO threshold)
Entries 2275968
TAC
QT Input Channel

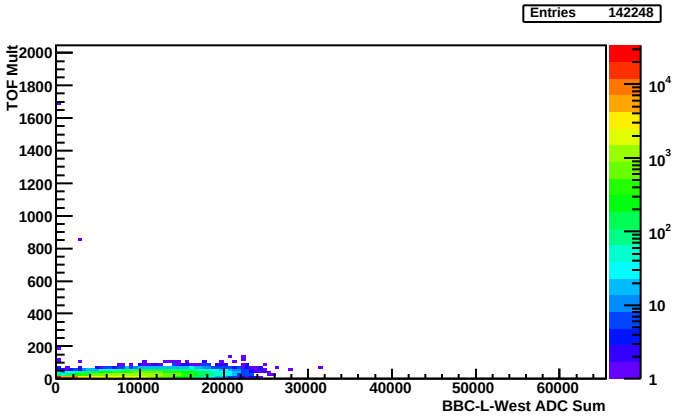

BBQ-VP003 (HI threshold)
Entries 2275968
ADC
QT Input Channel

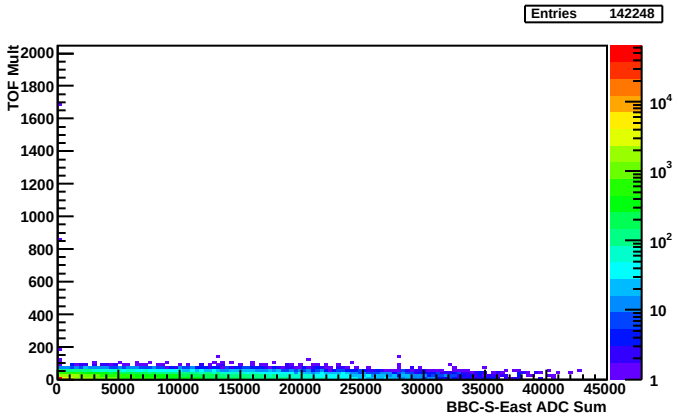

BBQ-VP003 (HI threshold)
Entries 2275968
TAC
QT Input Channel

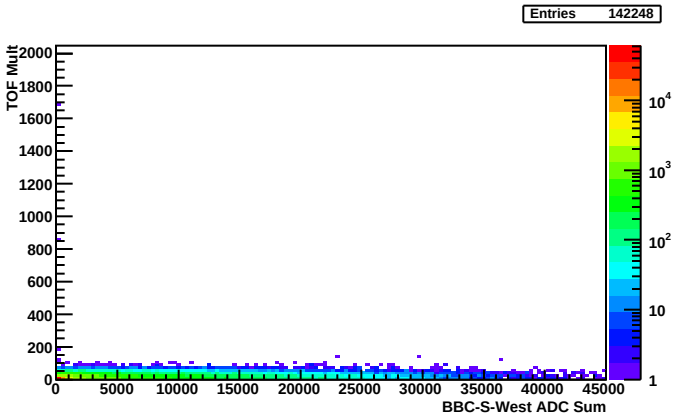

BBQ-VP004 (HI threshold)
Entries 2275968
ADC
QT Input Channel

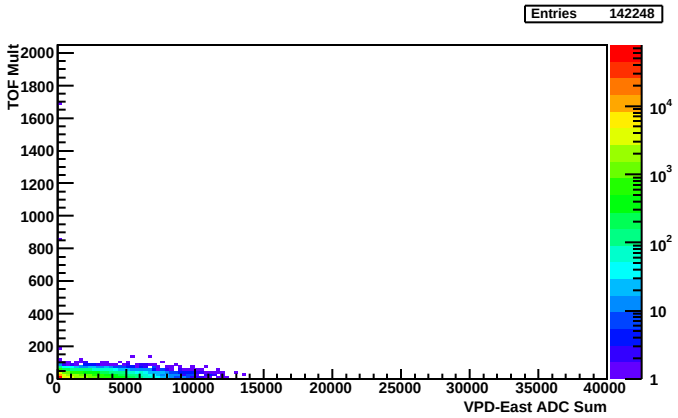

BBQ-VP004 (HI threshold)
Entries 2275968
TAC
QT Input Channel

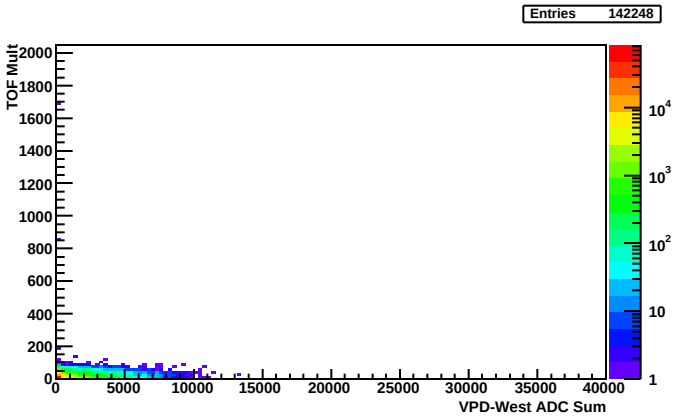

Entries 142248
TOF Mult
BBC-L-East ADC Sum

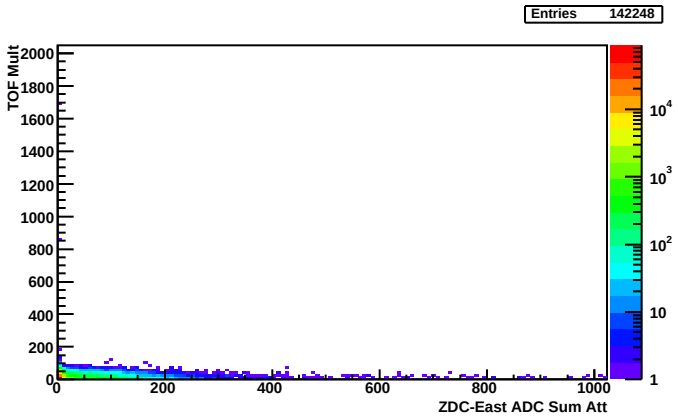

Entries 142248
TOF Mult
BBC-L-West ADC Sum

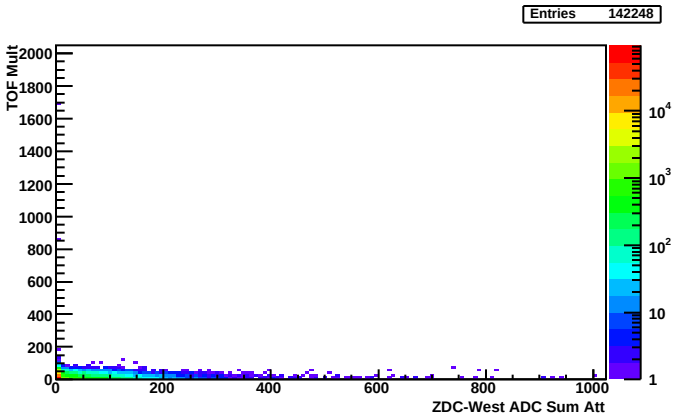

Entries 142248
TOF Mult
BBC-S-East ADC Sum

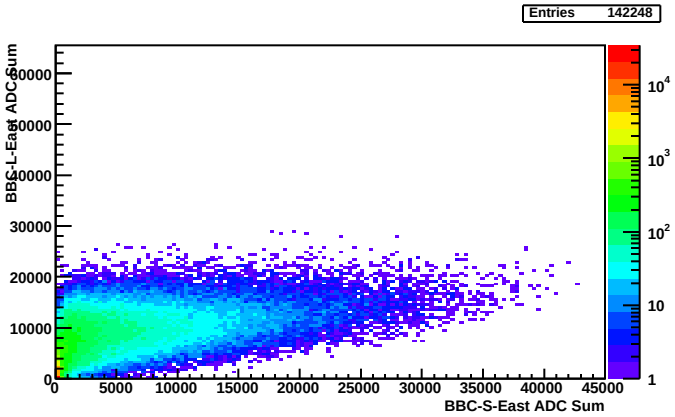

Entries 142248
TOF Mult
BBC-S-West ADC Sum

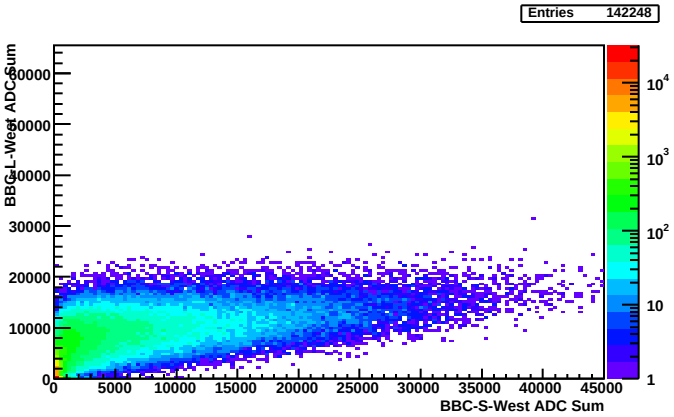

Entries 142248
TOF Mult
VPD-East ADC Sum

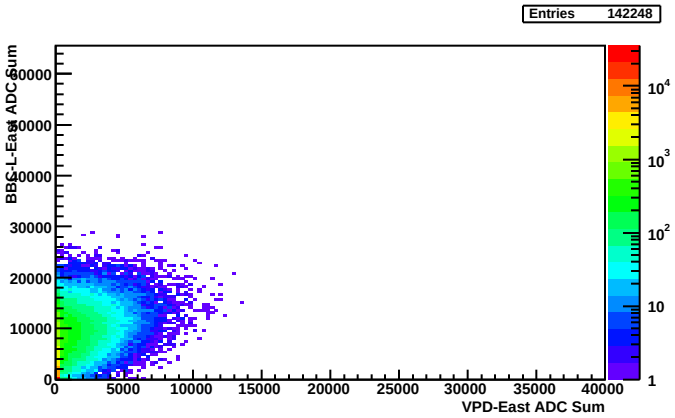

Entries 142248
TOF Mult
VPD-West ADC Sum

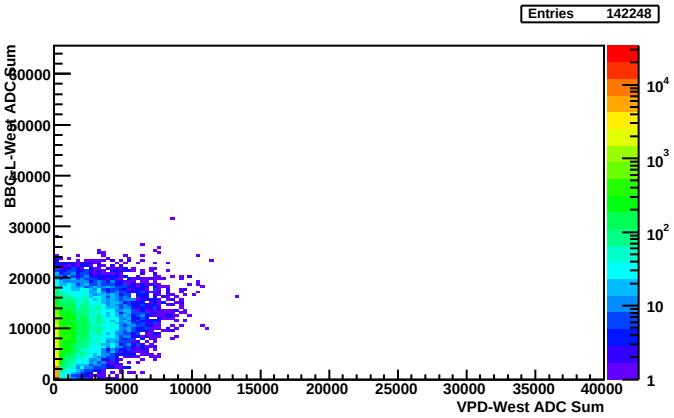

Entries 142248
TOF Mult
ZDC-East ADC Sum Att

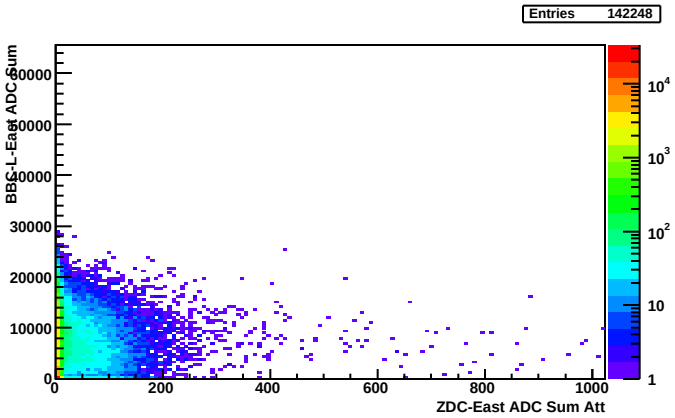

Entries 142248
TOF Mult
ZDC-West ADC Sum Att

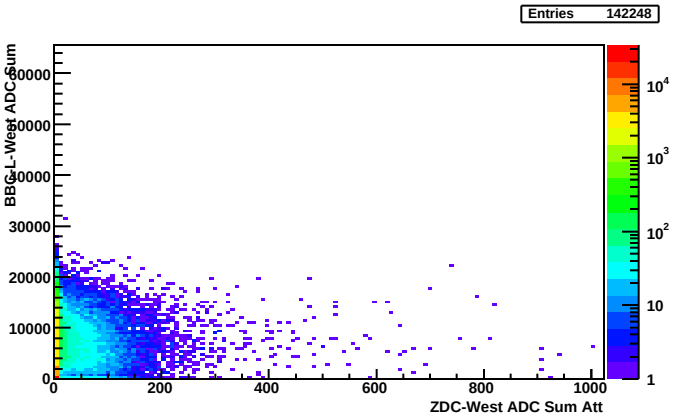

Entries 142248
BBC-L-East ADC Sum
BBC-S-East ADC Sum

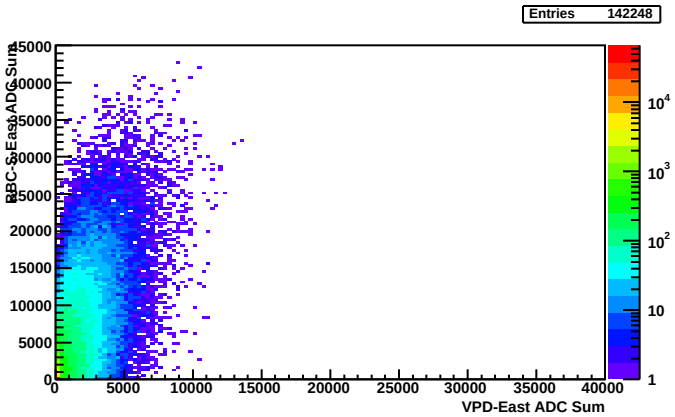

Entries 142248
BBC-L-West ADC Sum
BBC-S-West ADC Sum

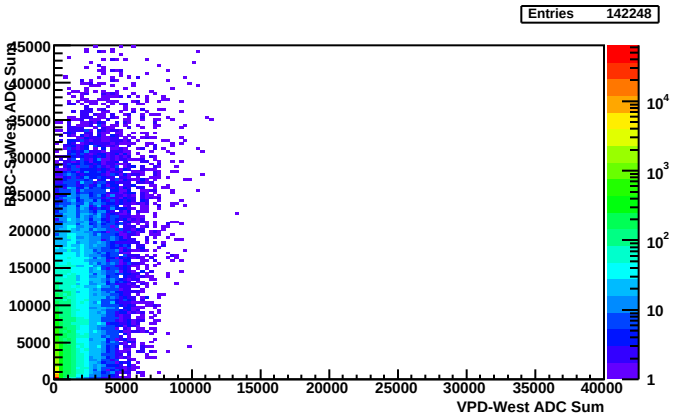

Entries 142248
BBC-L-East ADC Sum
VPD-East ADC Sum

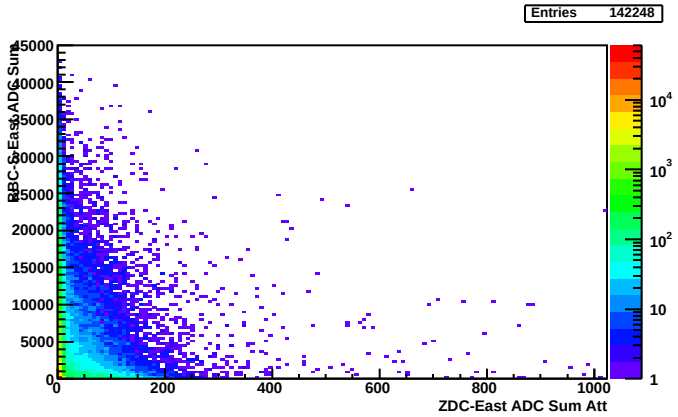

Entries 142248
BBC-L-West ADC Sum
VPD-West ADC Sum

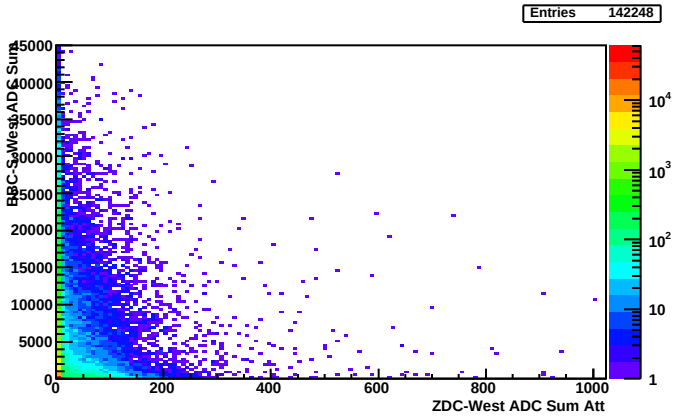

Entries 142248
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

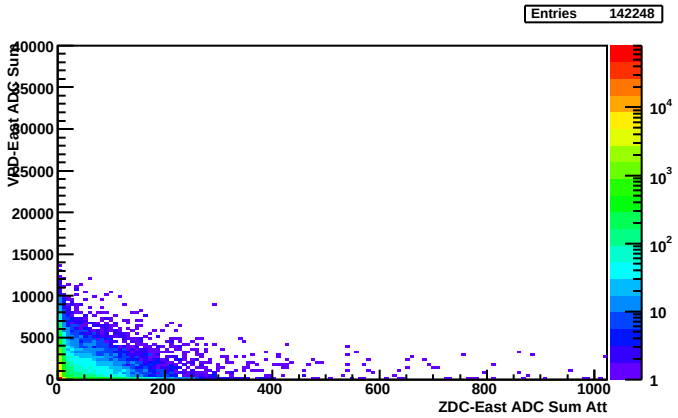

Entries 142248
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

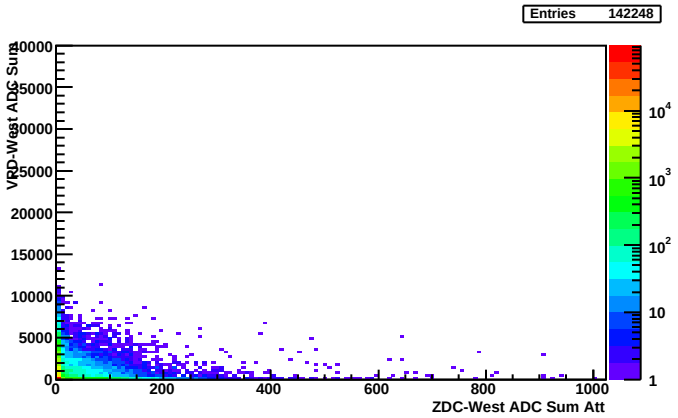

Entries 142248
BBC-S-East ADC Sum
VPD-East ADC Sum

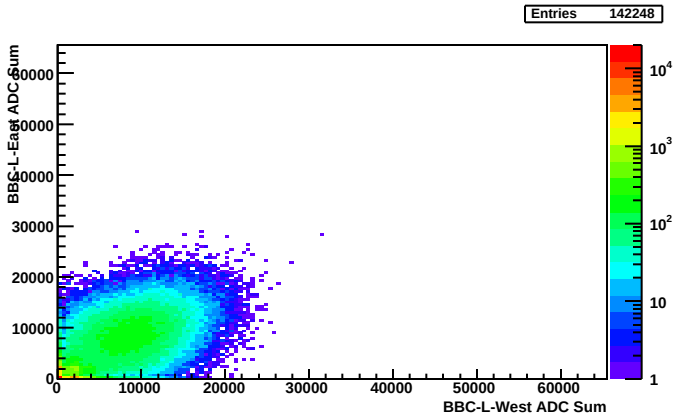

Entries 142248
BBC-S-West ADC Sum
VPD-West ADC Sum

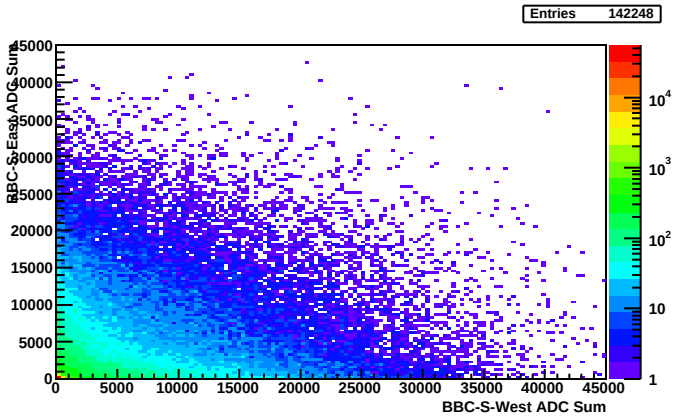

Entries 142248
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

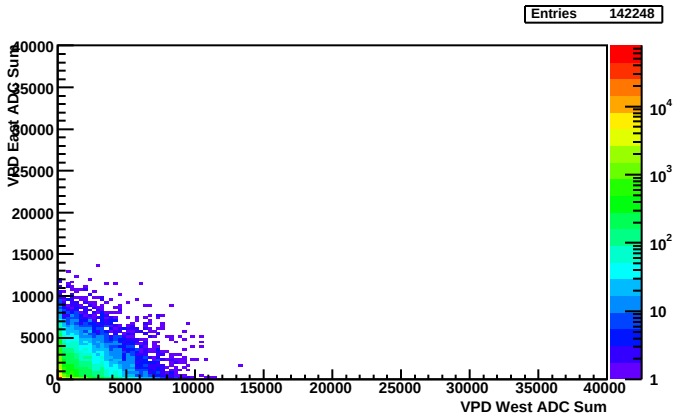

Entries 142248
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

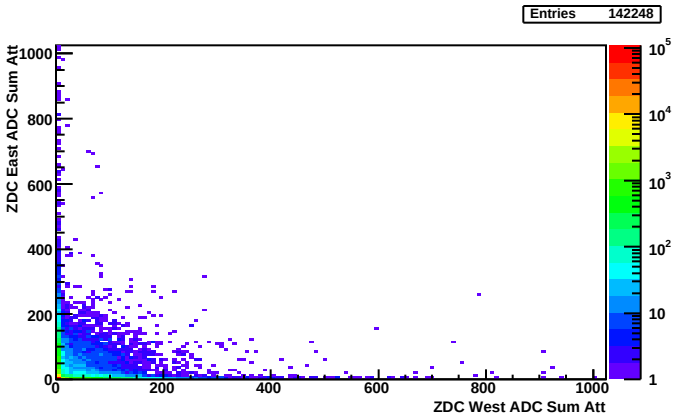

Entries 142248
VPD-East ADC Sum
ZDC-East ADC Sum Att

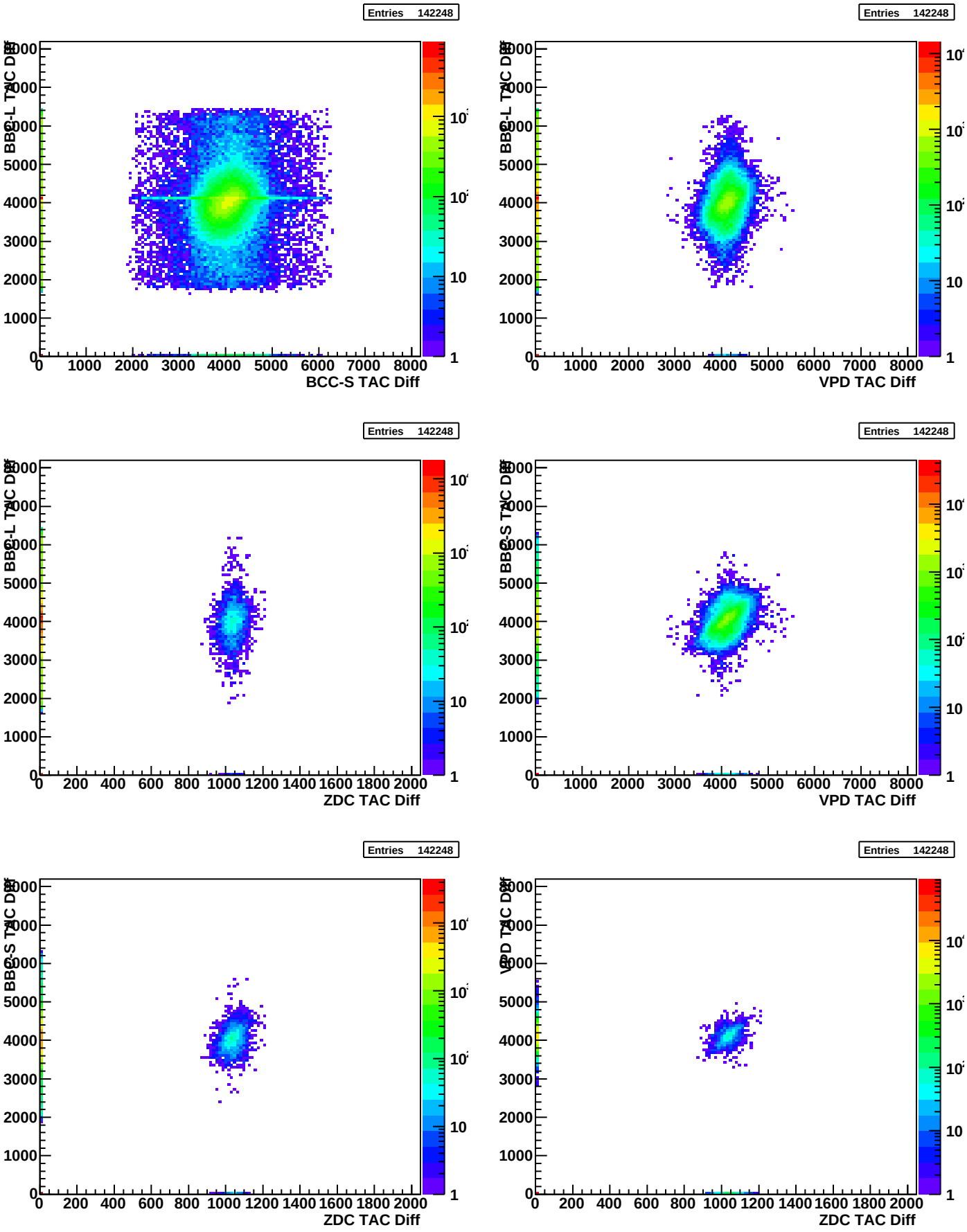

Entries 142248
VPD-West ADC Sum
ZDC-West ADC Sum Att

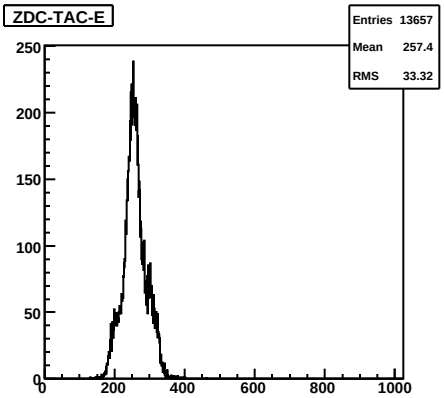

Entries 142248
BBC-L-East ADC Sum
BBC-L-West ADC Sum

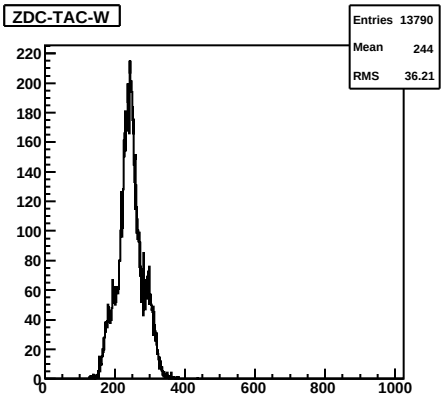

Entries 142248
BBC-S-East ADC Sum
BBC-S-West ADC Sum

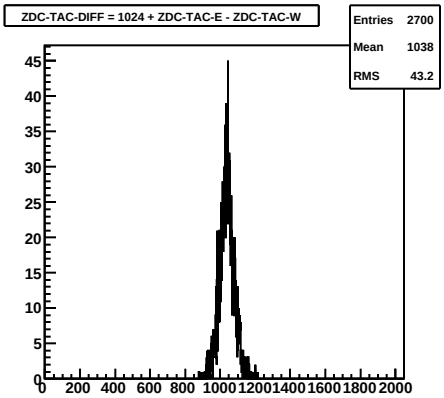

Entries 142248
VPD East ADC Sum
VPD West ADC Sum

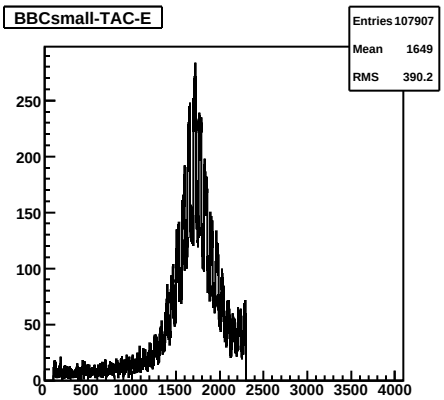

Entries 142248
ZDC East ADC Sum Att
ZDC West ADC Sum Att

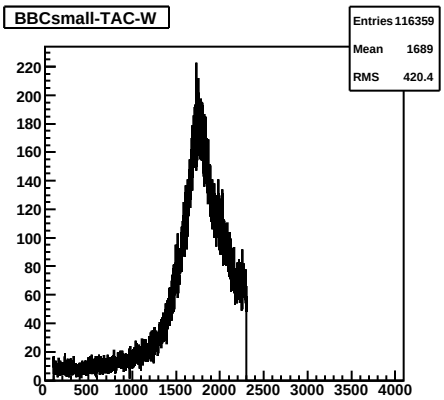

Entries 142248
BBC-L TAC Diff
BCC-S TAC Diff
Entries 142248
BBC-L TAC Diff
VPD TAC Diff
Entries 142248
BBC-L TAC Diff
ZDC TAC Diff
Entries 142248
BBC-S TAC Diff
VPD TAC Diff
Entries 142248
BBC-S TAC Diff
ZDC TAC Diff
Entries 142248
VPD TAC Diff
ZDC TAC Diff

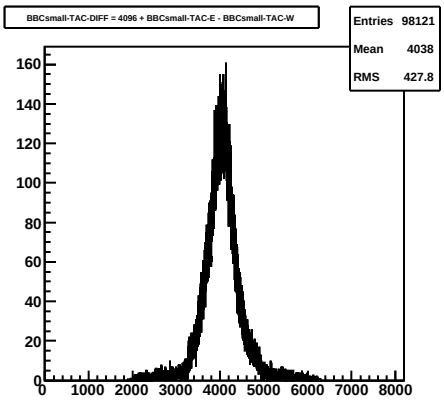

ZDC-TAC-E
Entries 13657
Mean 257.4
RMS 33.32

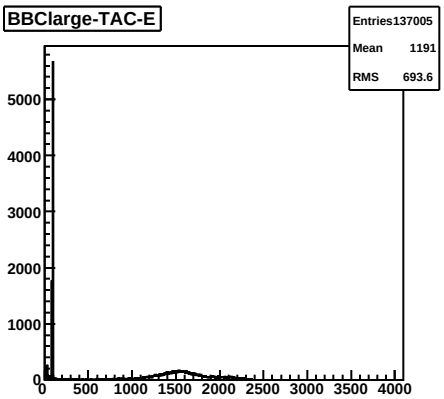

ZDC-TAC-W
Entries 13790
Mean 244
RMS 36.21

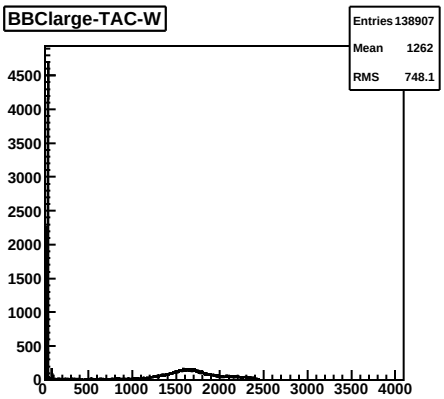

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2700
Mean 1038
RMS 43.2

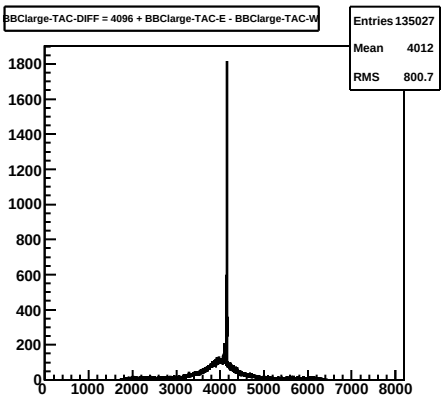

BBCsmall-TAC-E
Entries 107907
Mean 1649
RMS 390.2

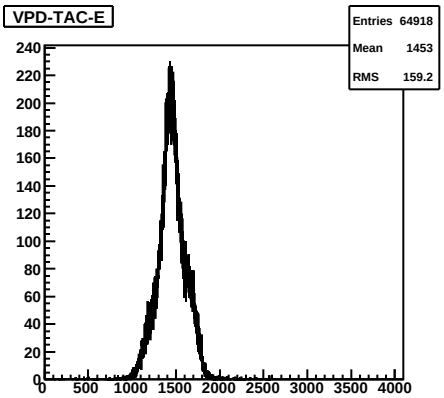

BBCsmall-TAC-W
Entries 116359
Mean 1689
RMS 420.4

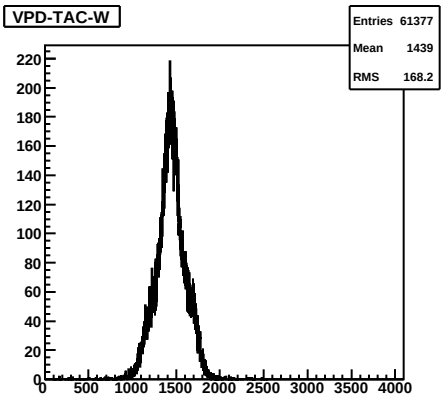

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 98121
Mean 4038
RMS 427.8

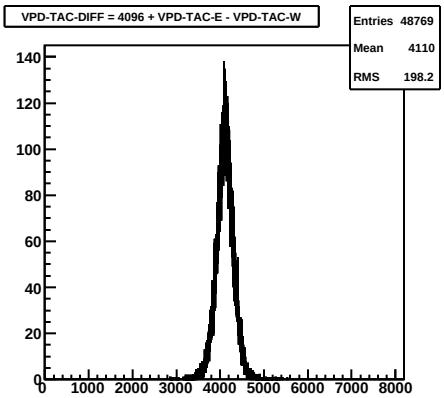

BBClarge-TAC-E
Entries 137005
Mean 1191
RMS 693.6

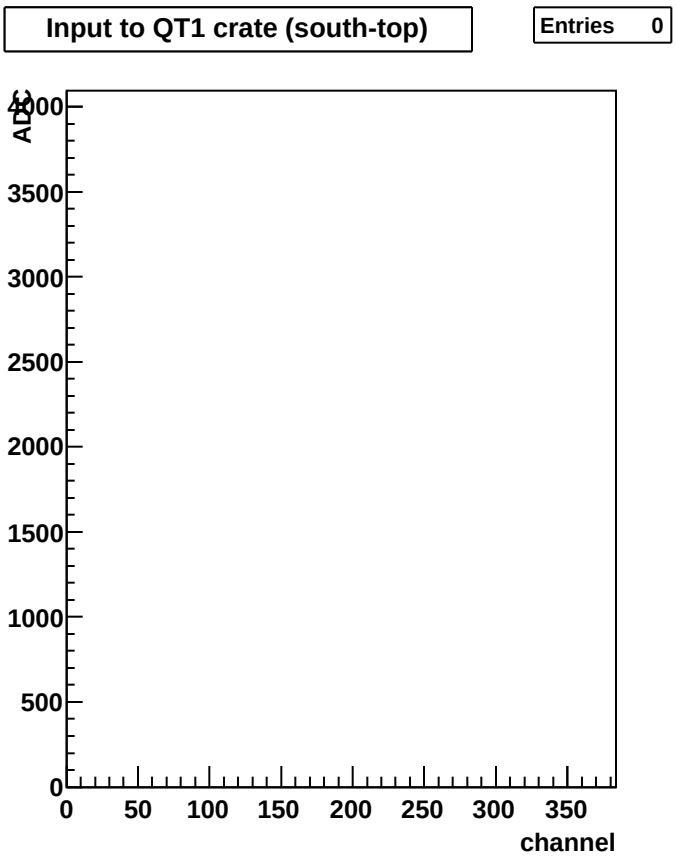

BBClarge-TAC-W
Entries 138907
Mean 1262
RMS 748.1

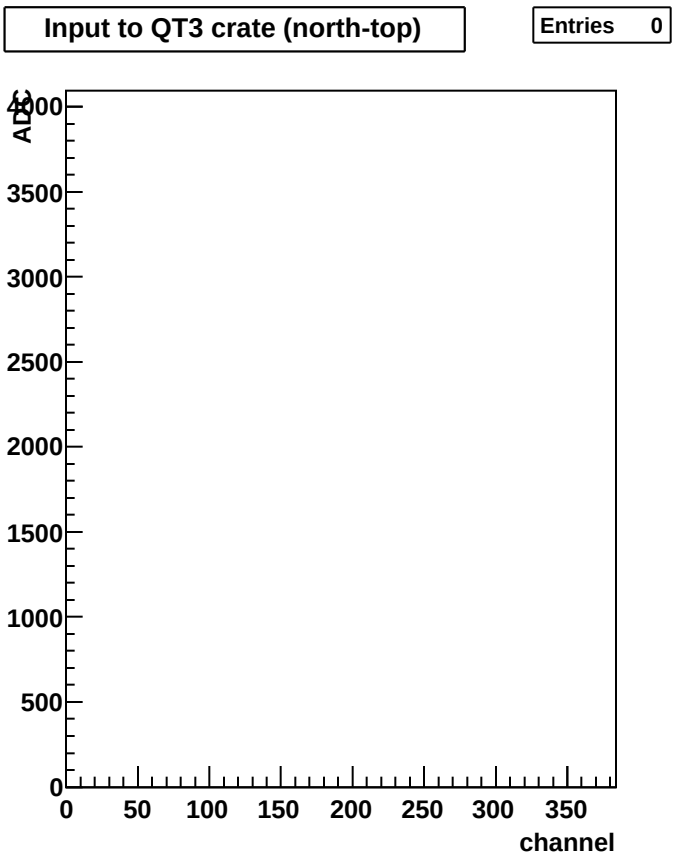

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 135027
Mean 4012
RMS 800.7

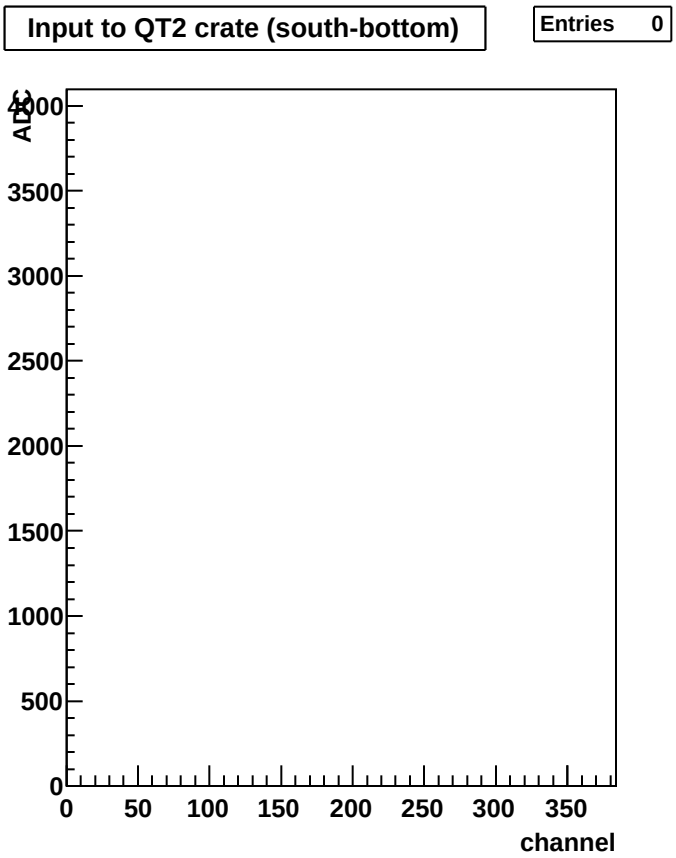

VPD-TAC-E
Entries 64918
Mean 1453
RMS 159.2

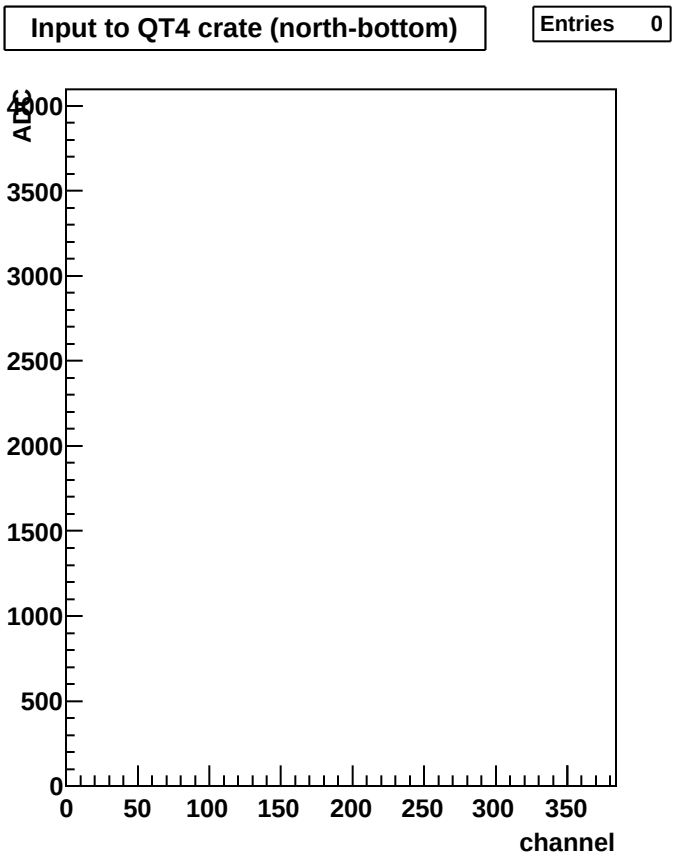

VPD-TAC-W
Entries 61377
Mean 1439
RMS 168.2

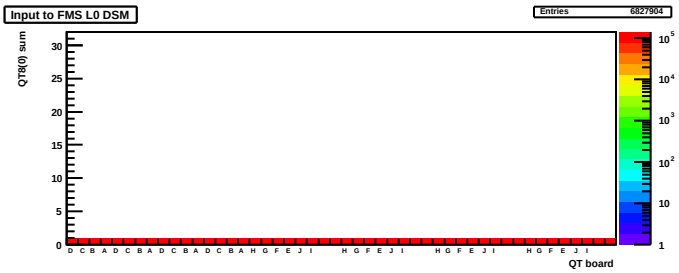

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 48769
Mean 4110
RMS 198.2

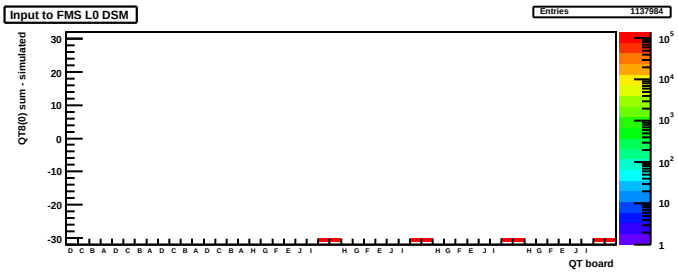

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

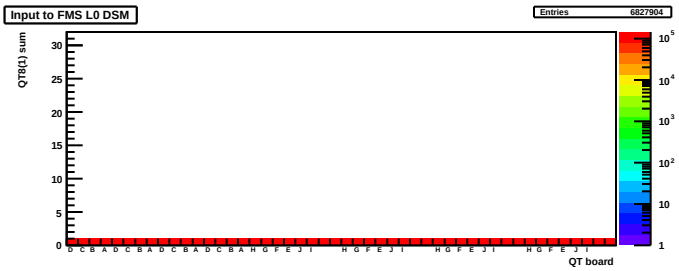

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

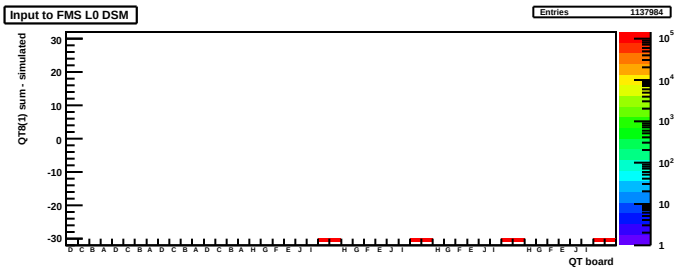

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

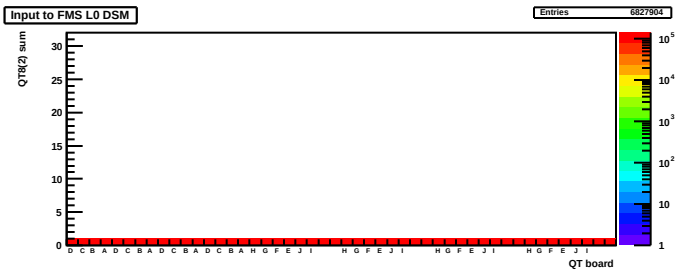

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

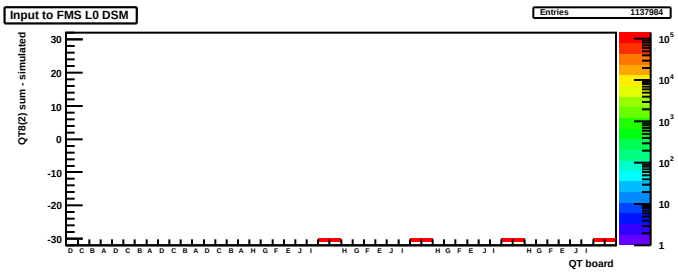

Input to FMS L0 DSM
Entries 6827904
QT8(0) sum
QT board

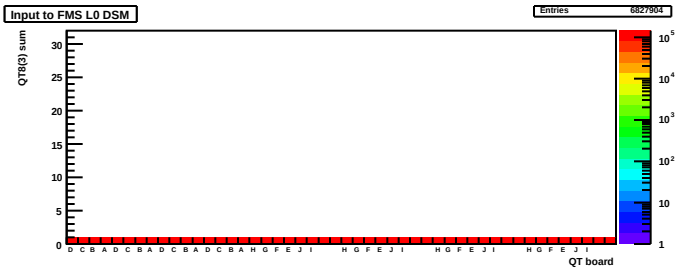

Input to FMS L0 DSM
Entries 1137984
QT8(0) sum - simulated
QT board

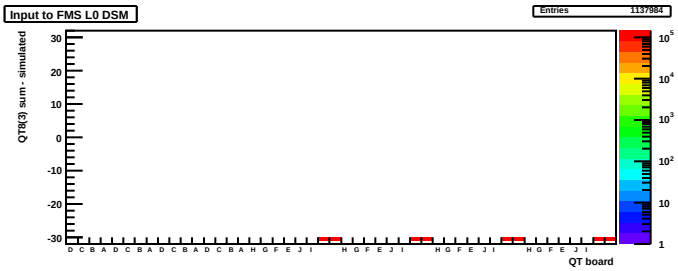

Input to FMS L0 DSM
Entries 6827904
QT8(1) sum
QT board

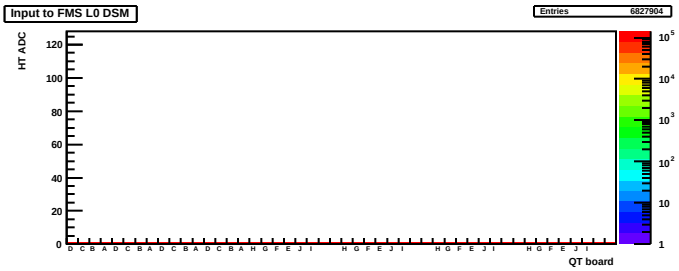

Input to FMS L0 DSM
Entries 1137984
QT8(1) sum - simulated
QT board

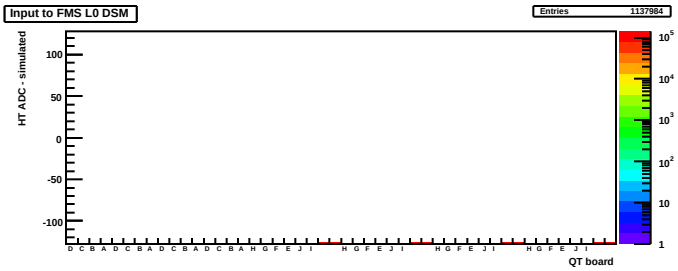

Input to FMS L0 DSM
Entries 6827904
QT8(2) sum
QT board

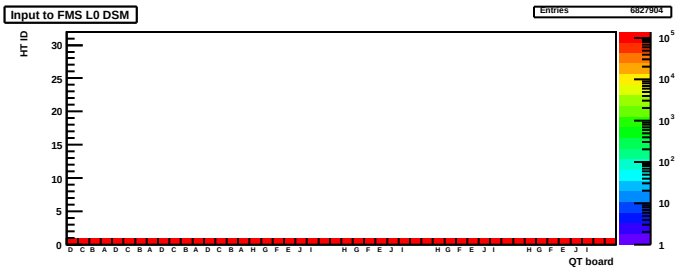

Input to FMS L0 DSM
Entries 1137984
QT8(2) sum - simulated
QT board

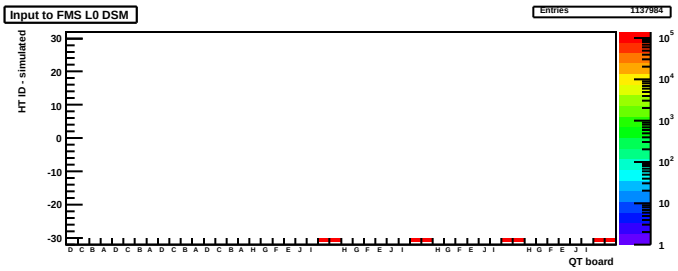

Input to FMS L0 DSM
Entries 6827904
QT8(3) sum
QT board

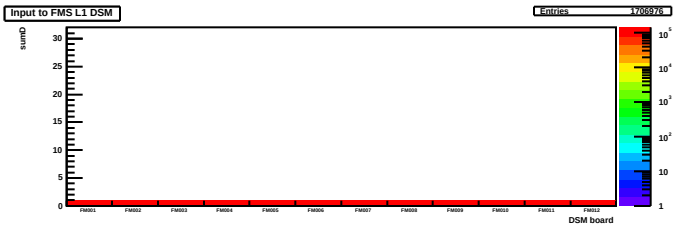

Input to FMS L0 DSM
Entries 1137984
QT8(3) sum - simulated
QT board

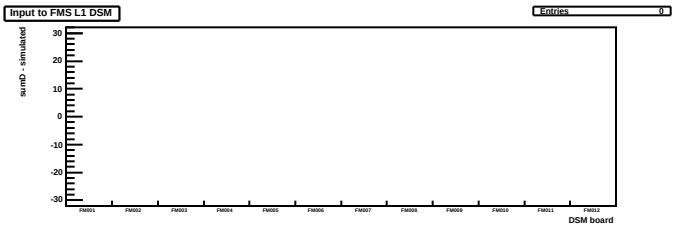

Input to FMS L0 DSM
Entries 6827904
HT ADC
QT board

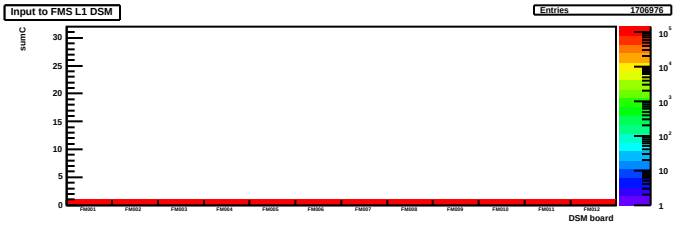

Input to FMS L0 DSM
Entries 1137984
HT ADC - simulated
QT board

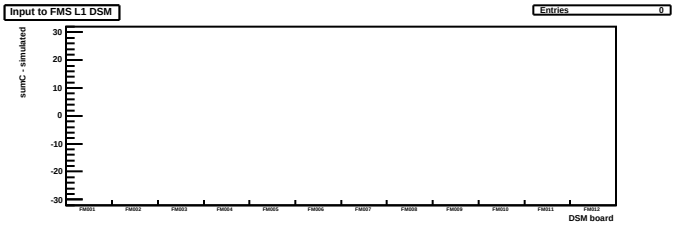

Input to FMS L0 DSM
Entries 6827904
HT ID
QT board

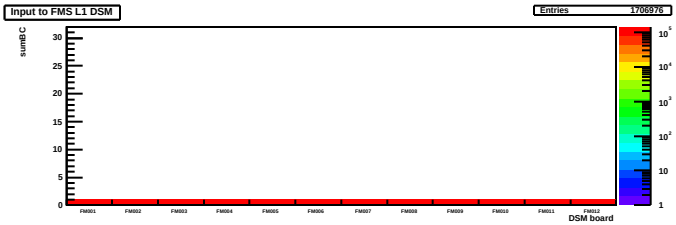

Input to FMS L0 DSM
Entries 1137984
HT ID - simulated
QT board

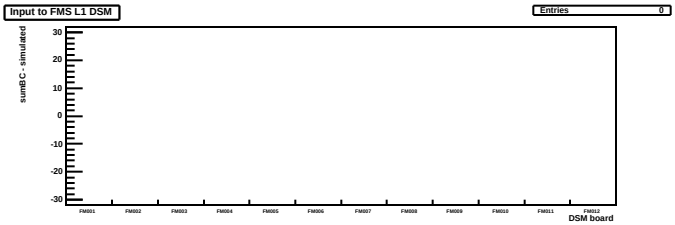

Input to FMS L1 DSM
Entries 1706976
sumD
DSM board

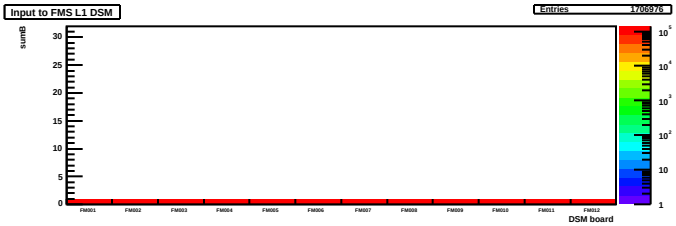

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

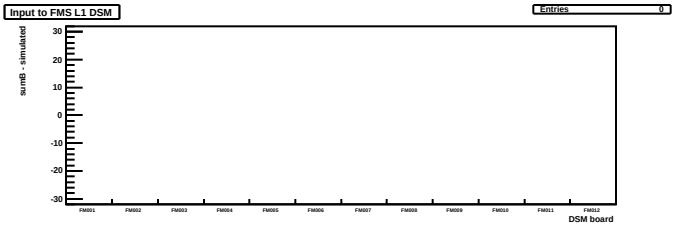

Input to FMS L1 DSM
Entries 1706976
sumC
DSM board

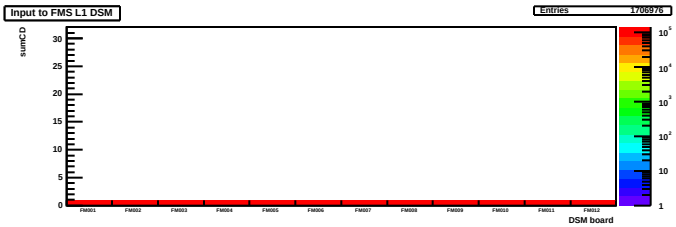

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

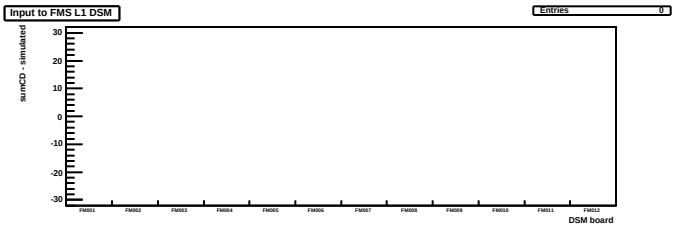

Input to FMS L1 DSM
Entries 1706976
sumBC
DSM board

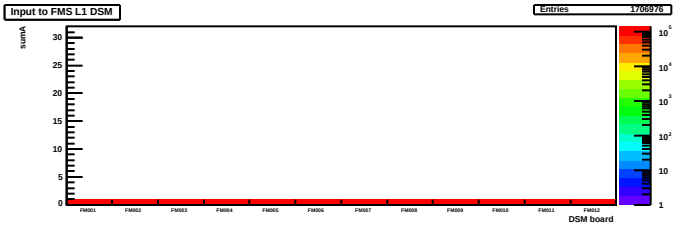

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

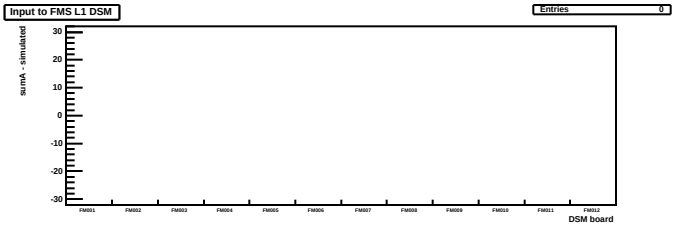

Input to FMS L1 DSM
Entries 1706976
sumB
DSM board

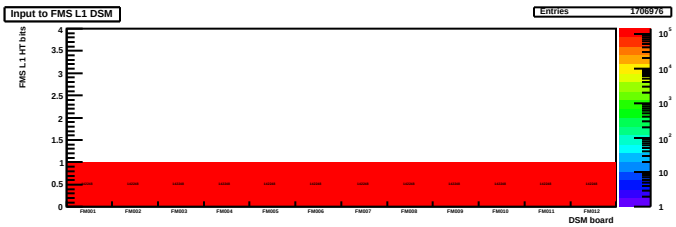

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

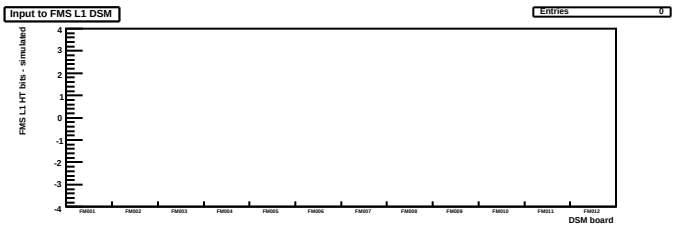

Input to FMS L1 DSM
Entries 1706976
sumCD
DSM board

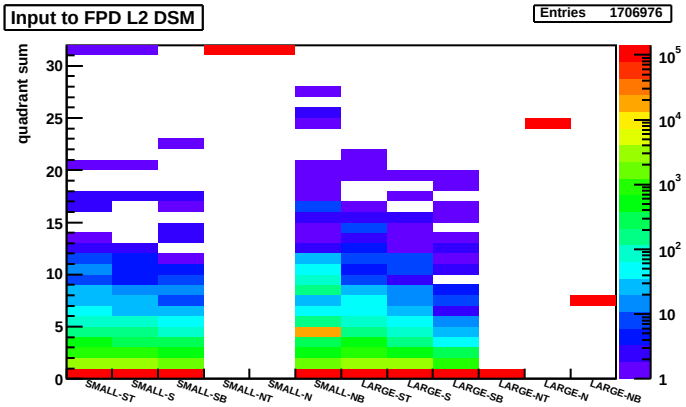

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

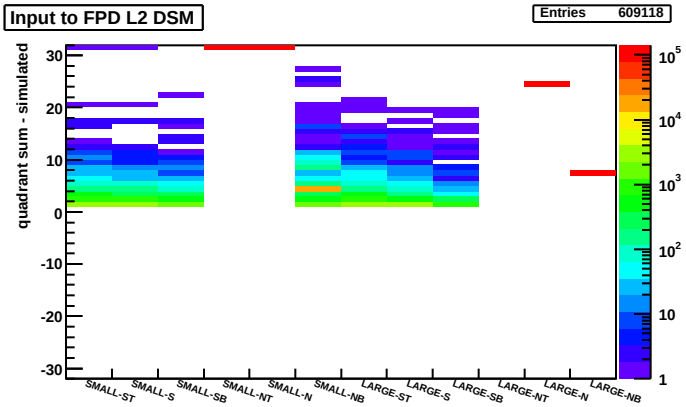

Input to FMS L1 DSM
Entries 1706976
sumA
DSM board

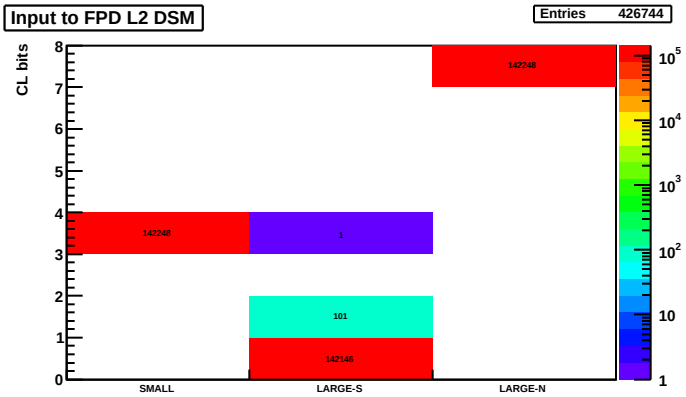

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

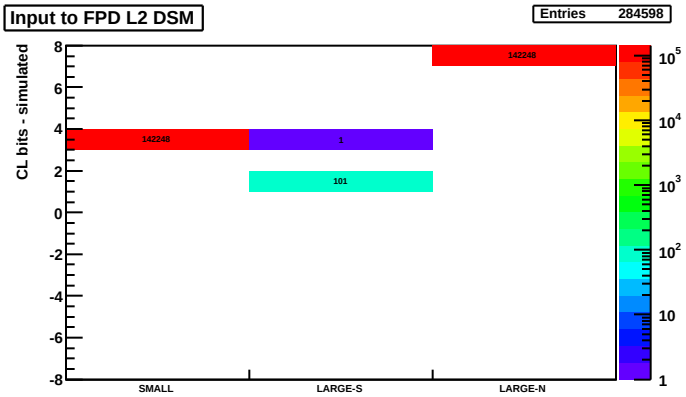

Input to FMS L1 DSM
Entries 1706976
FMS L1 HT bits
DSM board

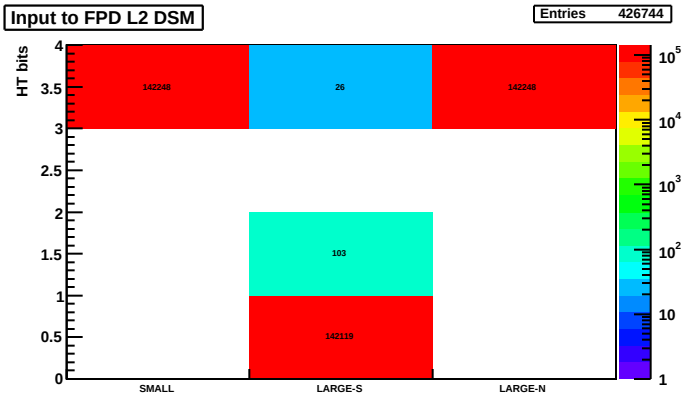

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

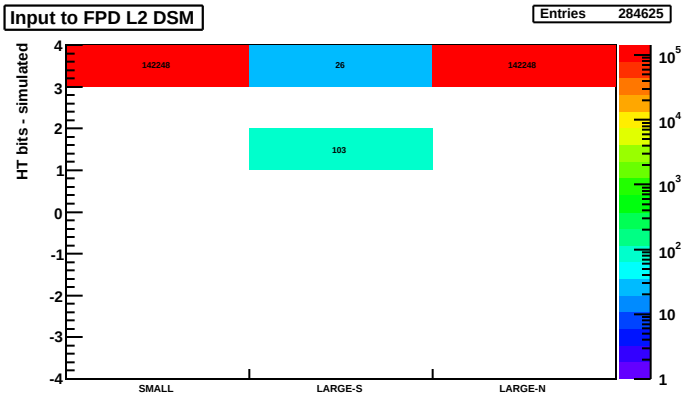

Input to FPD L2 DSM
Entries 1706976
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

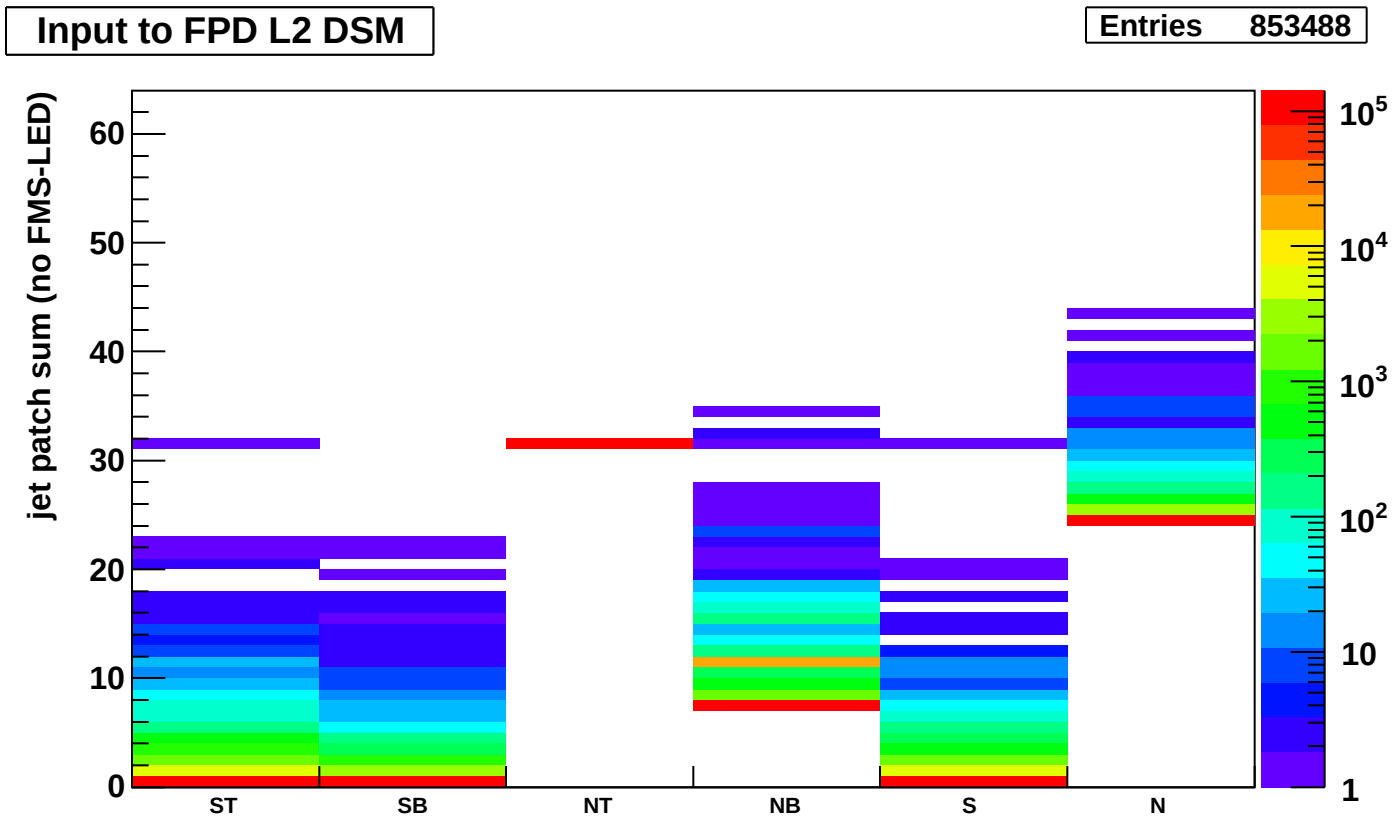

Input to FPD L2 DSM
Entries 609118
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

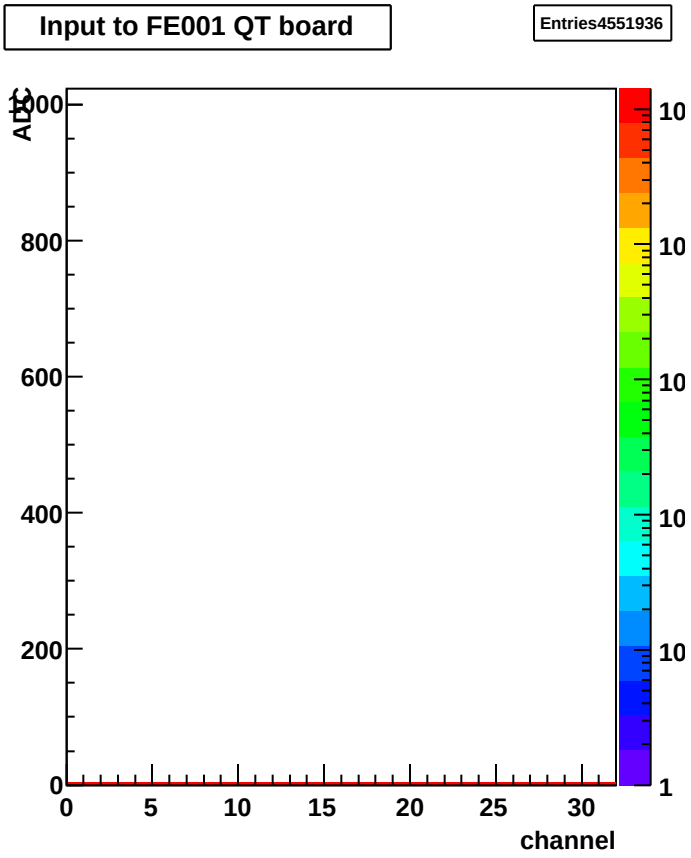

Input to FPD L2 DSM
Entries 426744
CL bits
142248
1
101
142146
142248
SMALL
LARGE-S
LARGE-N

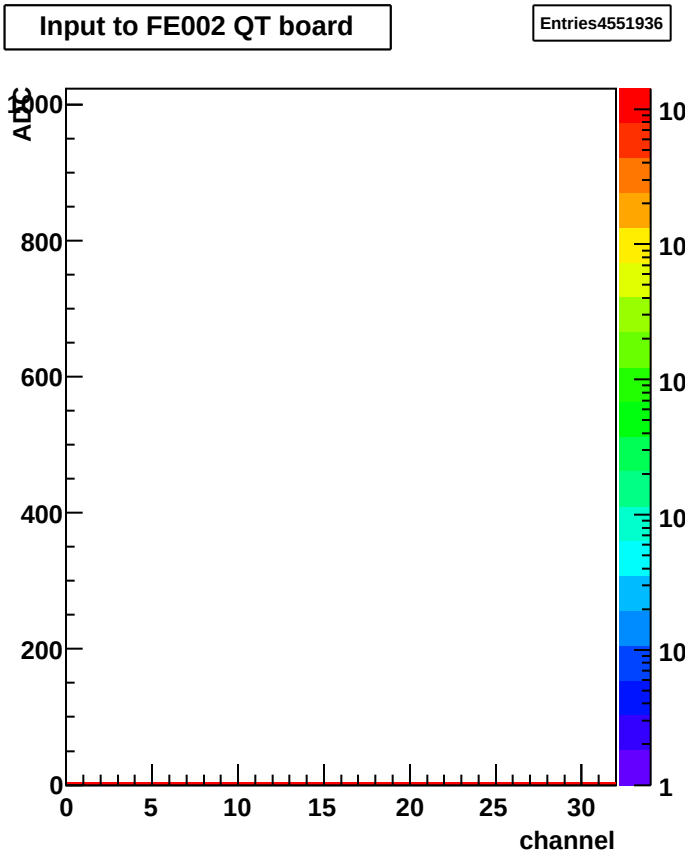

Input to FPD L2 DSM
Entries 284598
CL bits - simulated
142248
1
101
142248
SMALL
LARGE-S
LARGE-N

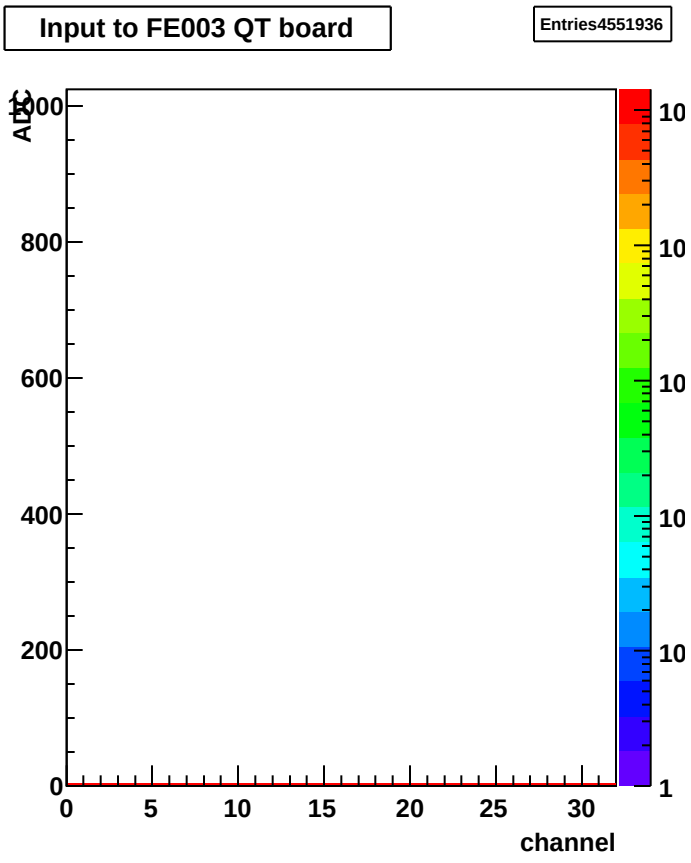

Input to FPD L2 DSM
Entries 426744
HT bits
142248
26
142248
103
142119
SMALL
LARGE-S
LARGE-N

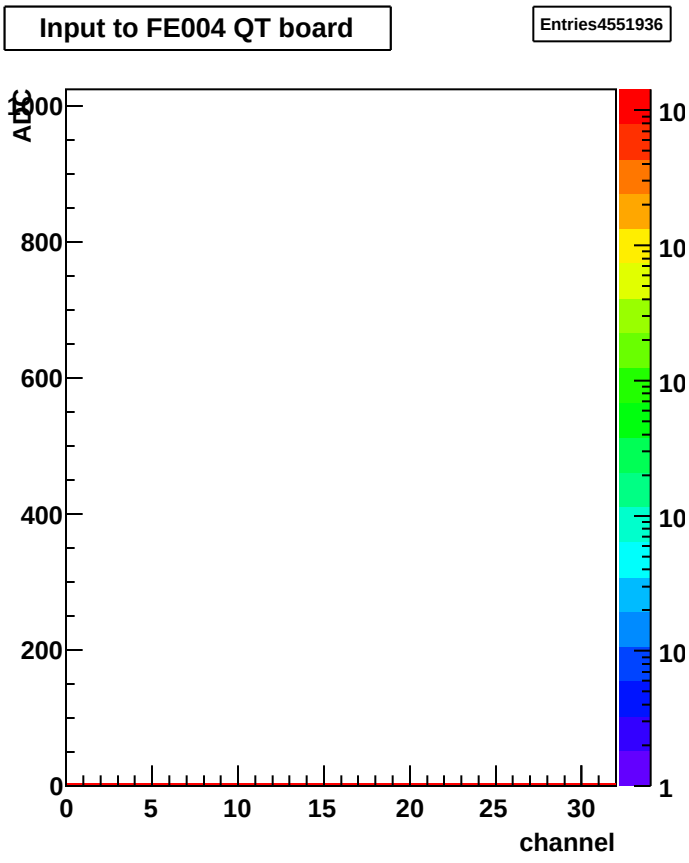

Input to FPD L2 DSM
Entries 284625
HT bits - simulated
142248
26
142248
103
SMALL
LARGE-S
LARGE-N

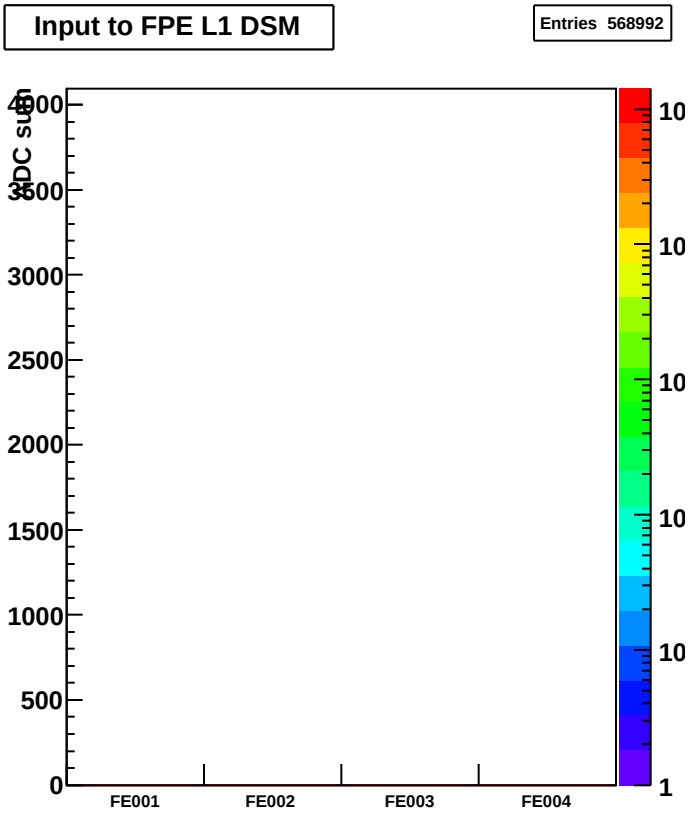

Input to FPD L2 DSM
Entries 853488
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

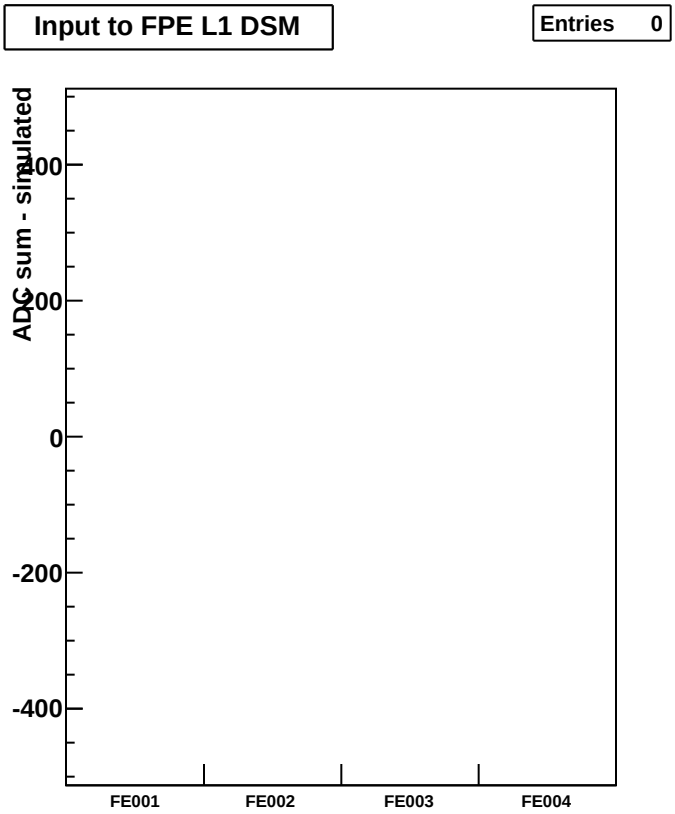

Input to FE001 QT board
Entries4551936
ADC
channel

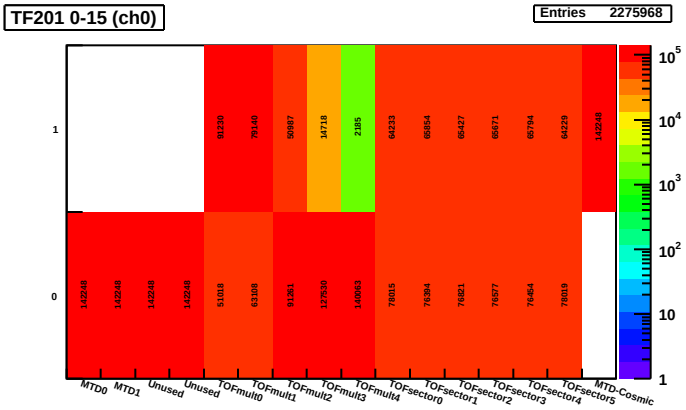

Input to FE002 QT board
Entries4551936
ADC
channel

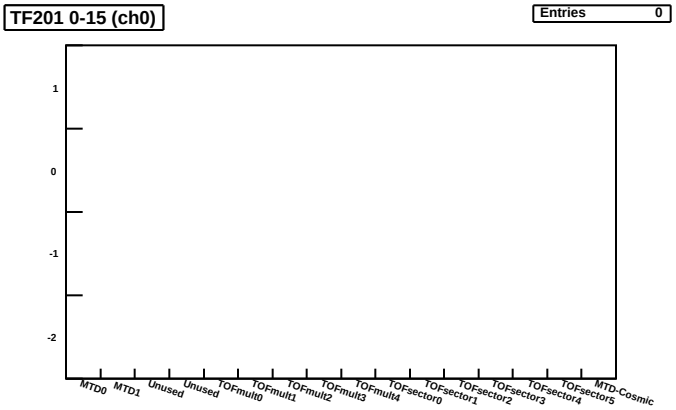

Input to FE003 QT board
Entries4551936
ADC
channel

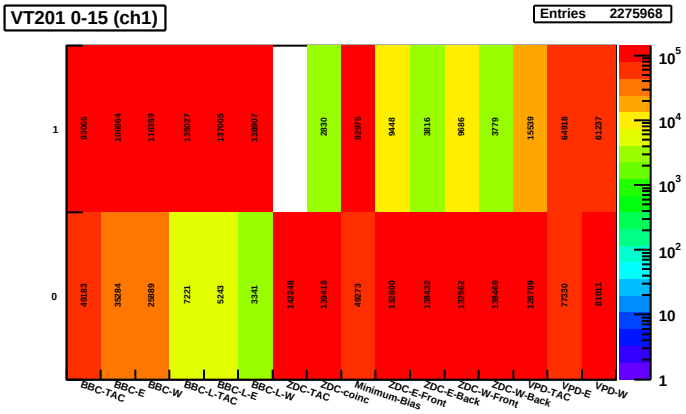

Input to FE004 QT board
Entries4551936
ADC
channel

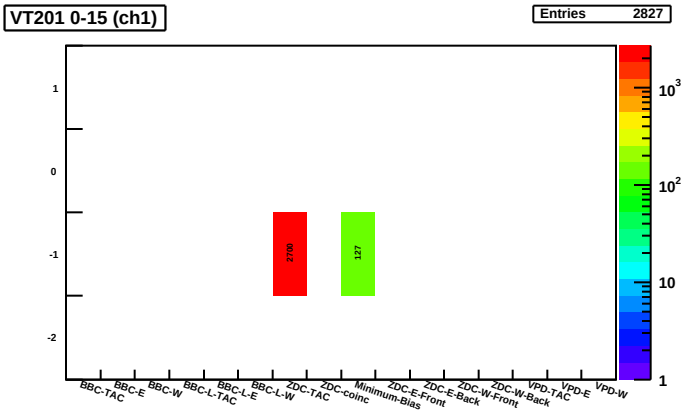

Input to FPE L1 DSM
Entries 568992
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

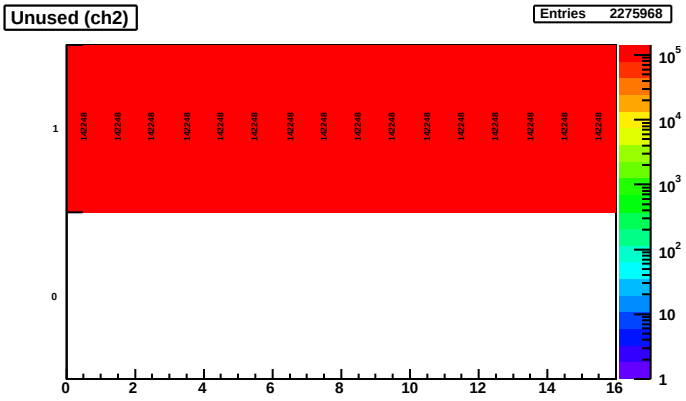

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

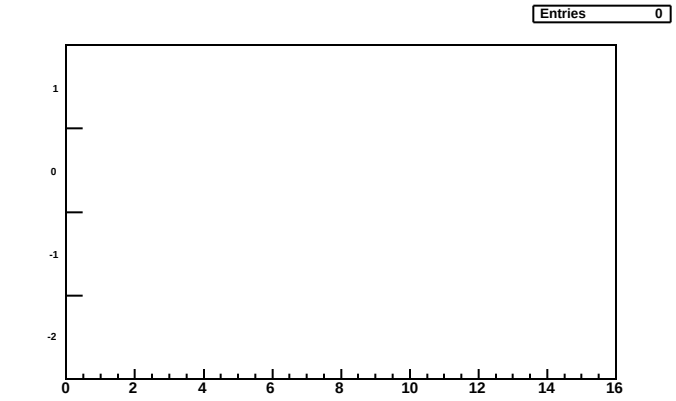

TF201 0-15 (ch0)
Entries 2275968
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

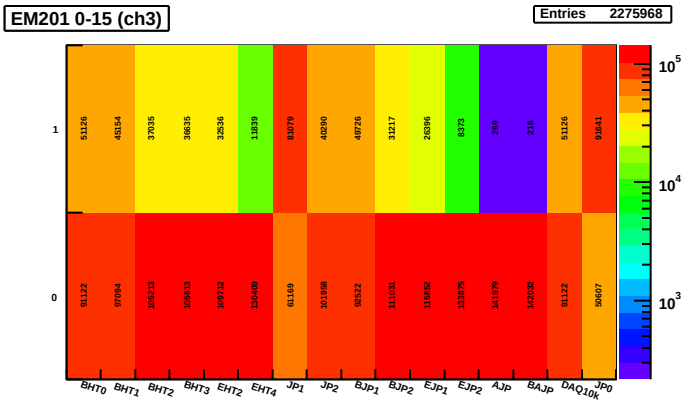

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

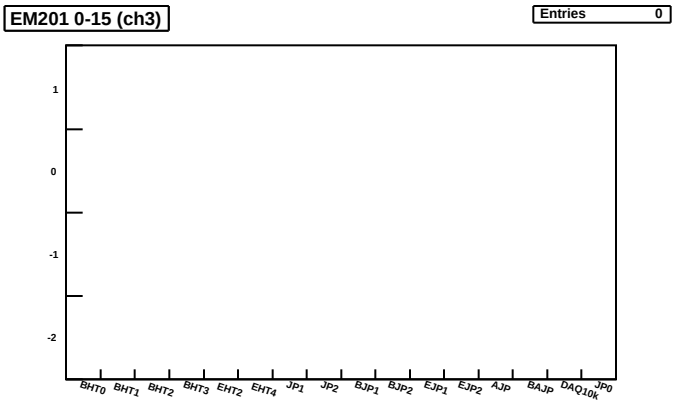

VT201 0-15 (ch1)
Entries 2275968
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2827
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

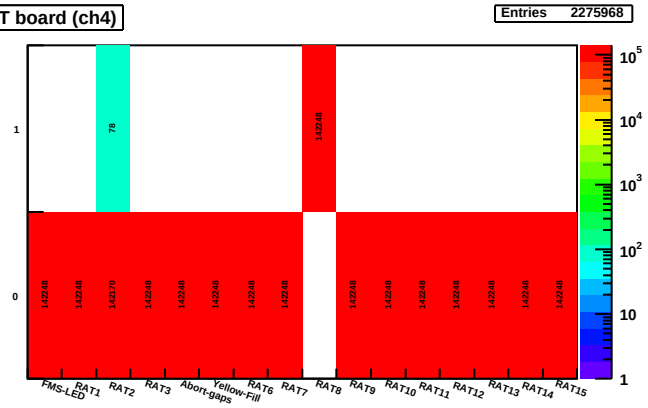

Unused (ch2)
Entries 2275968

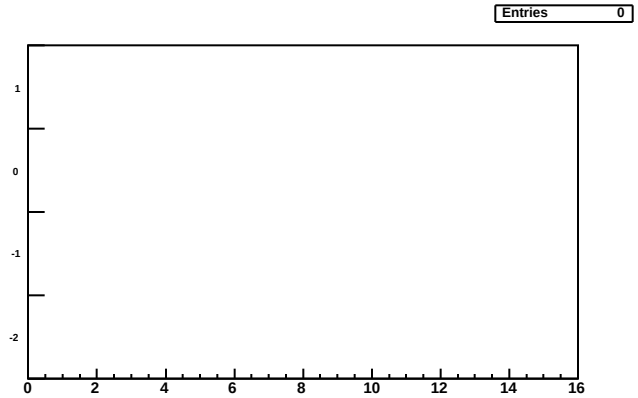

Entries 0


EM201 0-15 (ch3)
Entries 2275968
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

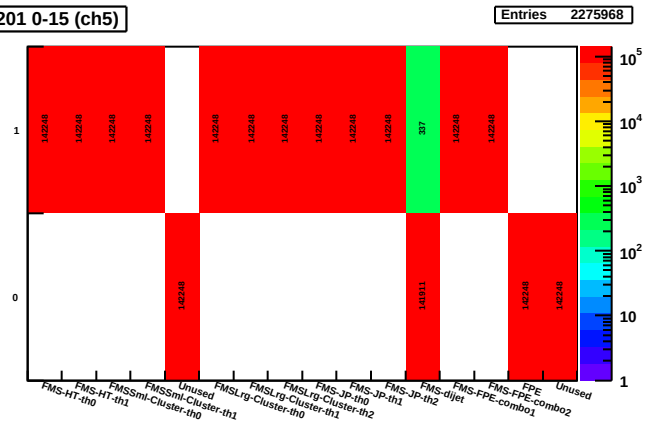

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

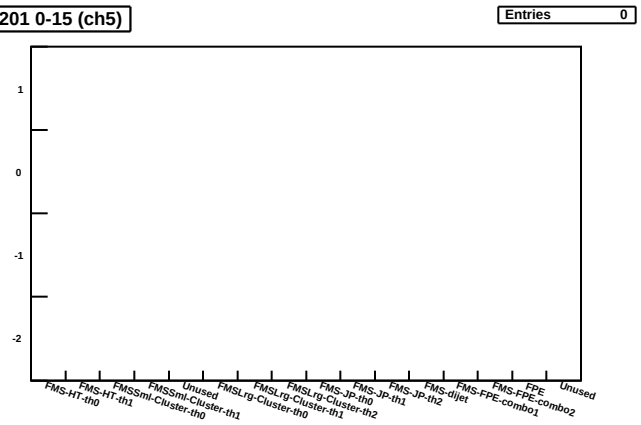




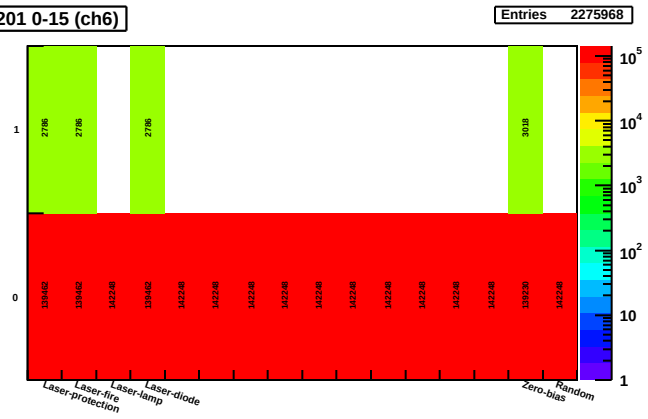
FP201 0-15 (ch5)

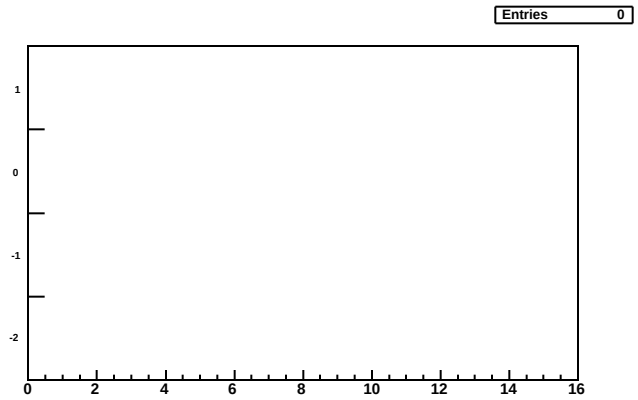
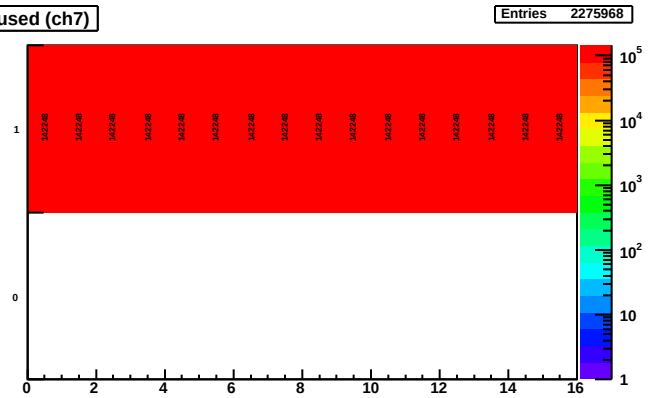
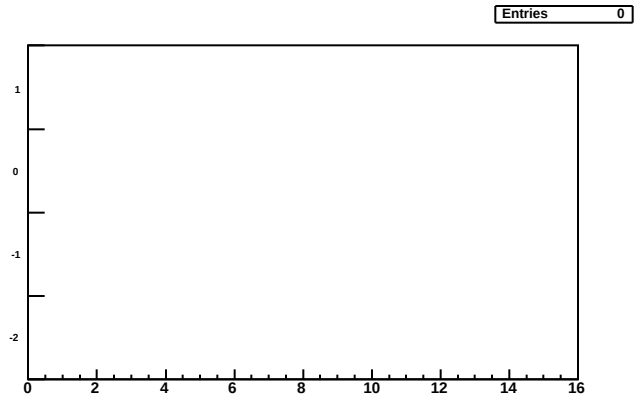


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)